



PDM Studio

What's new 2023 | EN | MP 04

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Introduction

PDM Studio 2023 MP04 is a maintenance release of PDM Studio. It contains mainly bug fixes and some enhancements.

The major items are described in detail in the following sections. Any other items not listed in detail are described in the [Enhancements/Improvements/Changes/Fixed bugs](#) section.

Note: Please also read the document "ReadmePDM2023MP04.txt" in the "Documents\EN" directory of your MP04 installation files. This document lists the ticket numbers of the solved tickets in MP04.

For more information on **how to install the V2023 MP04**, please read the following document:

["PDMStudio_Installation_2023_EN.pdf"](#)

Important: After installation, see the notes in the „Setup Client Administrator“ topic.

Licensing 2023

A new version of licensing, version 2023, has been introduced with PDM Studio version 2023.

Supported Operating Systems:

Windows 10, Windows 11, Windows Server 2016 or higher.

Important: Windows Server 2012 is no longer supported by Flexera Licensing. Before installing, please check which operating system is running on the server where the Cadpartner Licensing will run. If it is Windows Server 2012 and there is no way to change it (upgrade to Windows Server 2016 or higher), you MUST select another computer that meets the hardware requirements.

Please note that if you choose a different computer, the hardware ID will change and you will need a new PDM Studio license.

Update Licensing Version 2023

Important: PDM Studio version 2023 requires a NEW license file. The license file for version V2020 is NOT VALID for version 2023. BEFORE upgrading to version 2023, be sure to request your new license file.

The new Cadpartner V2023 Licensing will be automatically installed during the installation of PDM Studio V2023 MP04.

Installation

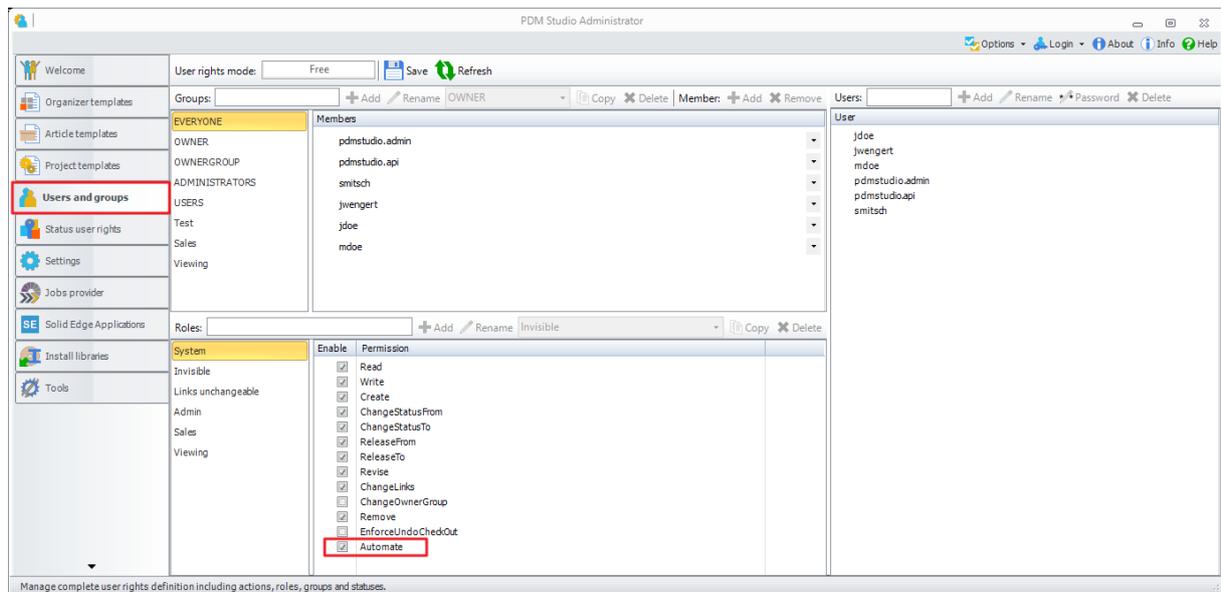
Important: We strongly recommend that you check in all documents and clear the local cache on all clients before installing PDM Studio V2023 MP04.

Important: All client applications such as PDM Studio, Solid Edge and the Automation Server MUST also be closed. It is highly recommended, that you back up your data storage before any update.

PDM Studio Client Administrator

New Permission „Automate“

A new "Automate" permission has been introduced. This permission **allows or disallows** sending jobs from PDM Studio and PDM Studio Reader to the Automation Server.



Access to the Automation Server is enabled by assigning the "Automate" permission to the appropriate authorized user group.

This permission allows you to define with great flexibility which user group has the right to send jobs.

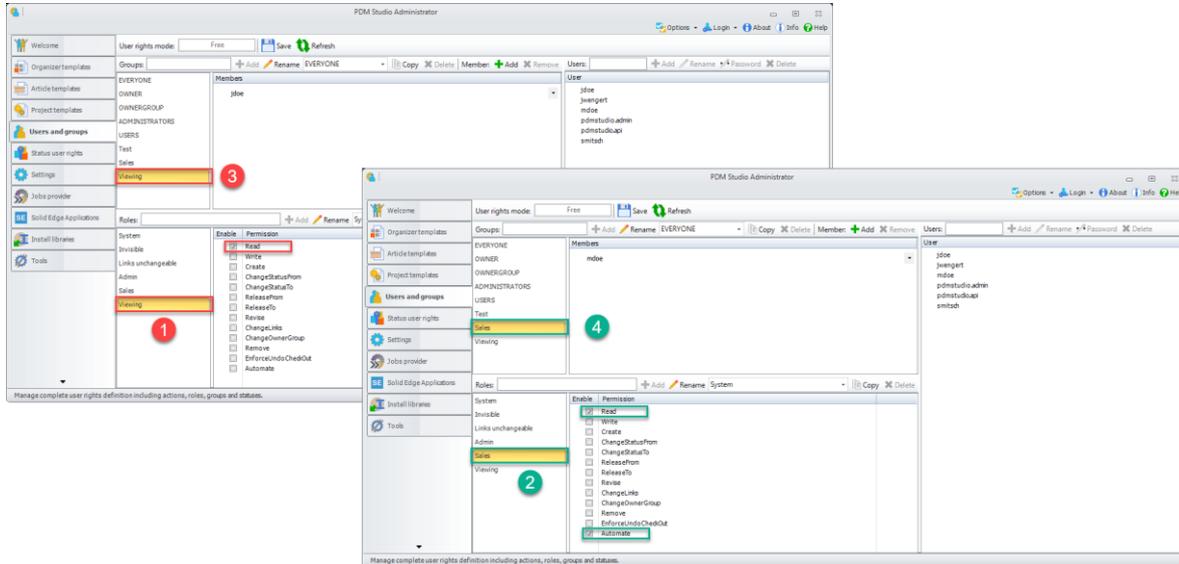
This rule applies to both PDM Studio and PDM Studio Reader. The permission is created in the form of a role and then assigned to a group.

The user rights can also be linked to the respective status.

A major advantage of status binding is that you can now specify, for example, that a user group may only send released documents (or documents with a certain status) to the Automation Server, but not documents with the status Available (or documents with a different status).

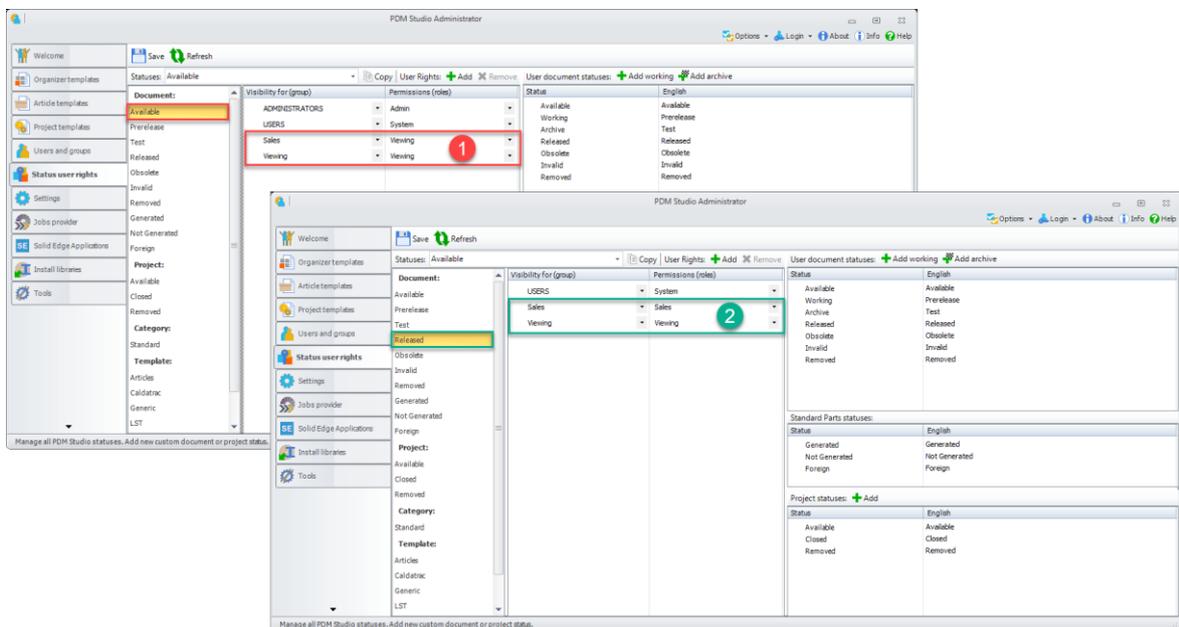
See the following example.

Example of status linkage:



In the example there are two roles. The "Viewing" role (1) only has the right to read the documents, while the second role "Sales" (2) has the right to read and process the documents via the Automation Server.

In addition, two groups are defined in our example, the "Viewing" group (3) and the "Sales" group (4).



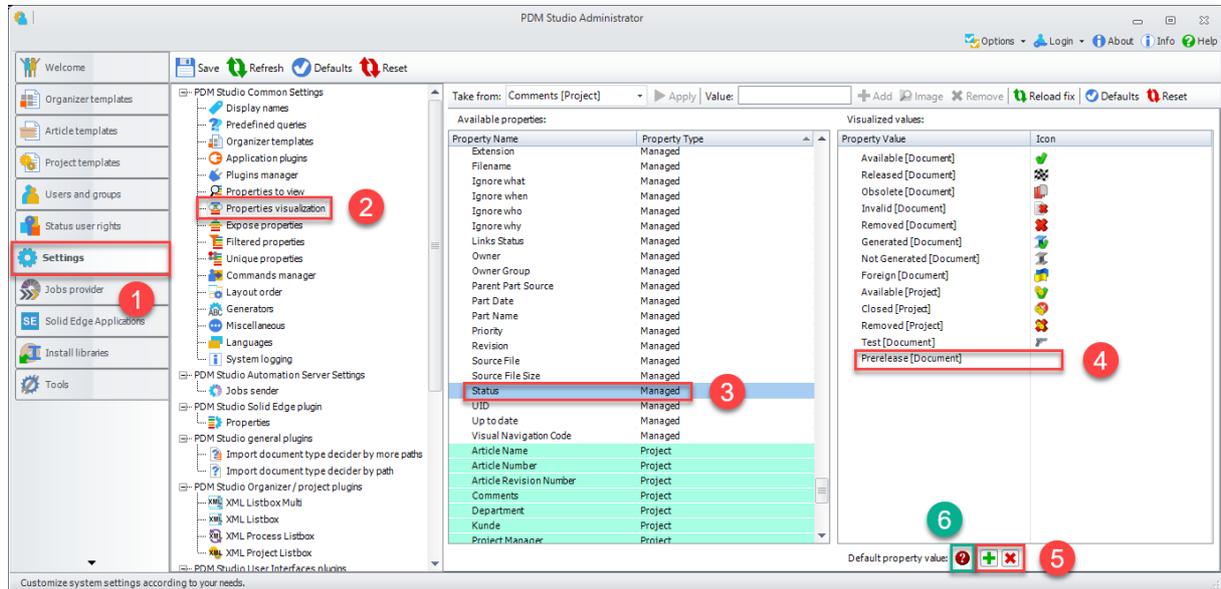
In the "Available" status (1), the "Sales" and "View" groups have read-only rights.

In "Released" status (2), the "Viewing" group has read-only rights, while the "Sales" group can read AND process documents via the Automation Server.

For more information, see the [PDM Studio Reader chapter](#).

Default icon for undefined property values

Added the ability to define a default icon for undefined graphic property values.



The functions in the "Properties visualization" sub-item (2) can be used to display the property values (3) graphically. This means that the selected values of the selected properties are displayed as symbols (instead of alphanumeric string values) in wizards, PDM Studio windows, etc. An example of this is the **graphical symbol for Solid Edge assemblies** instead of the text "ASM".

With MP04, you now have the possibility to **add and delete** (5) a general symbol (6) for property values that are not provided with a symbol (icon) (4).

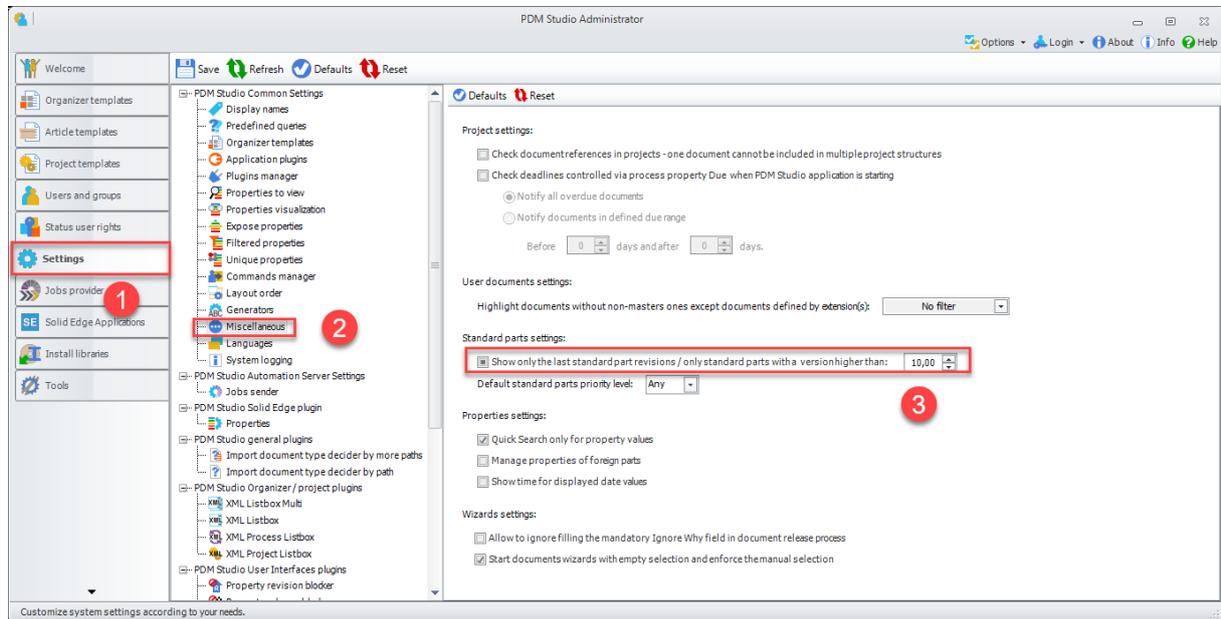
In our example, the "Prerelease" property (4) in the "Status" group in PDM Studio receives the symbol (6) assigned with the "Add" function (5), since the property itself does not have its own symbol. This icon can also be "Deleted" (5).

If there is more than one property without an assigned symbol, this generic symbol will be assigned to all properties in the group that do **not have their own symbol** (4).

Note: An icon must ALWAYS be 16x16 pixels in size.

See the [PDM Studio chapter](#) for more information.

Enhancement of the standard parts display setting



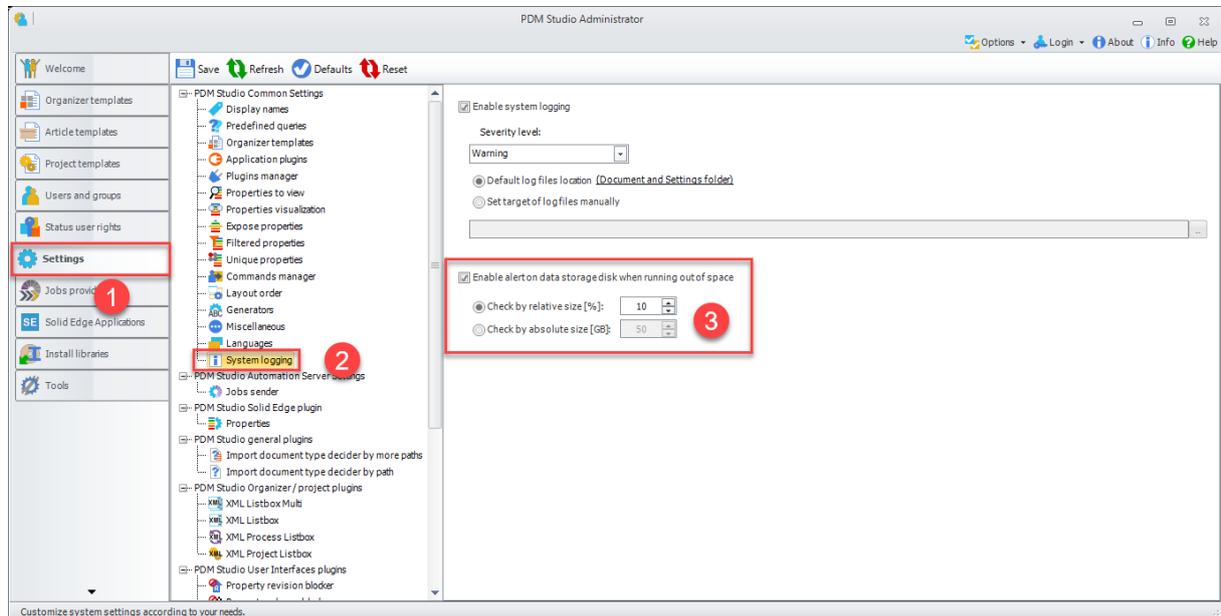
The new option "Only standard parts with a version higher then" has been introduced. It extends the existing option "Show only the last standard part revision".

Select one of the following states of the tri-state checkbox:

- Checked**
 Select this state, and the Standard Parts section of the Navigator in PDM Studio will display only the versions of standard categories containing the highest revisions of standard parts. PDM Studio does not display empty standard categories when this option is set.
Note: PDM Studio does not display empty standard categories when this option is set.
- Intermediate**
 Select this state, and in the Standard Parts section of the Navigator in PDM Studio, only the standard categories containing standard part versions equal to or higher than the specified version (number) will be displayed.
Note: PDM Studio does not display empty standard categories when this option is set.
- Unchecked**
 Select this state, and all versions of standard parts will be displayed.
Note: If this option is deactivated, PDM Studio also displays empty standard categories.

See the [PDM Studio chapter](#) for more information.

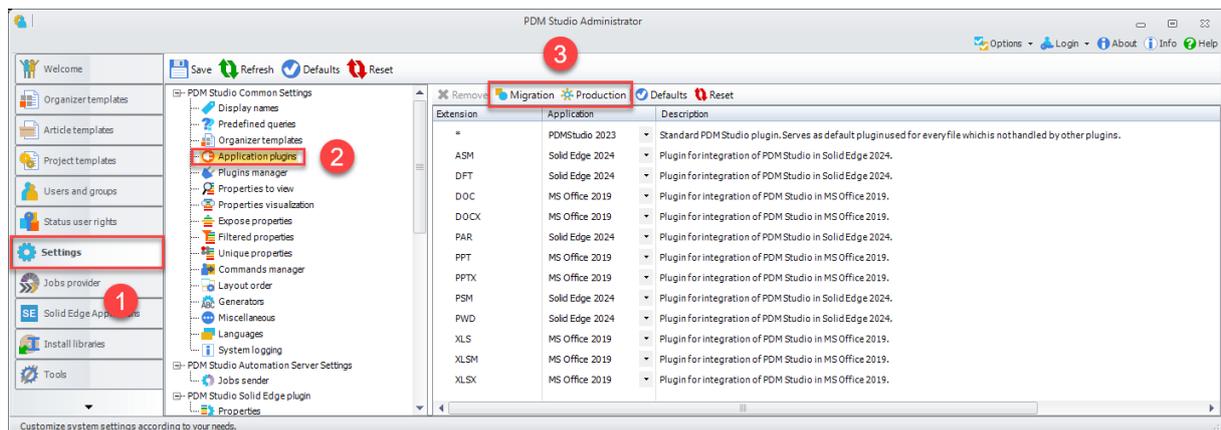
Enable/Disable low disk space warning on PDM Studio data storage



A new option has been introduced to set the limit for the low disk space warning on the PDM Studio Server data storage during the startup of the PDM Studio Client. **The limit can be set in GB or in %.**

Disabling the "Enable alert on low data storage disk when running out of space" option disables the **warning**.

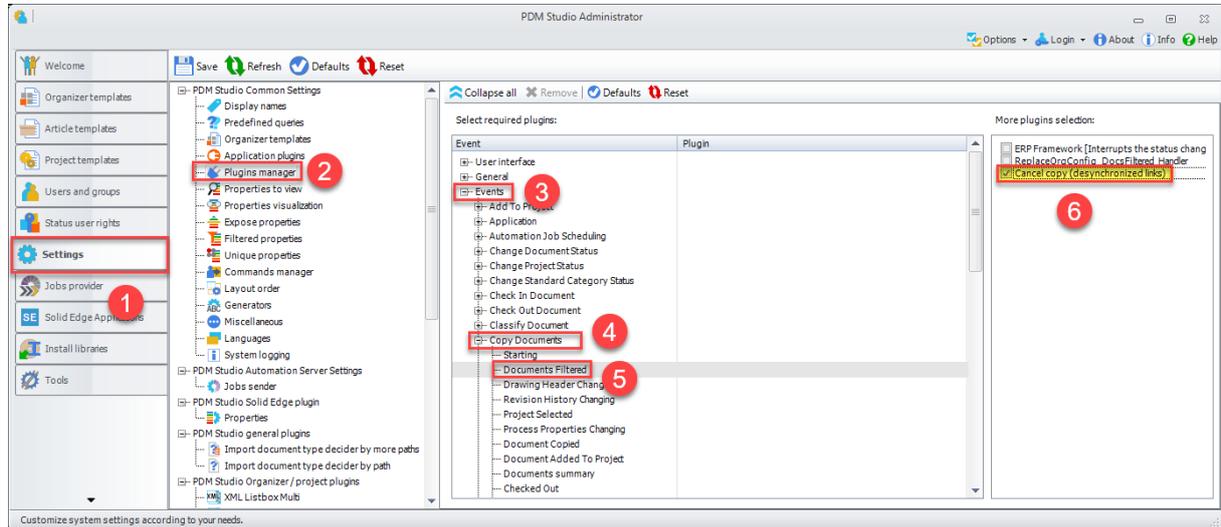
Switching between migration and production plugins



Important: The new Migration and Production setting (3) is **ONLY** required for migration. Migration plugins are only used for the migration process (e.g., they are required for a snapshot step). Migration plugins (if installed) can be recognized by the additional label [Migration] in square brackets. Selecting the "Migration" function switches the plugins to migration mode. Selecting the Production function returns the plugins to standard mode.

Block Solid Edge assemblies with incorrect internal links

In rare cases, assemblies may be graphically broken (parts have lost their relationships to each other) during copying for some reason. This is caused by incorrect internal links in the assembly.

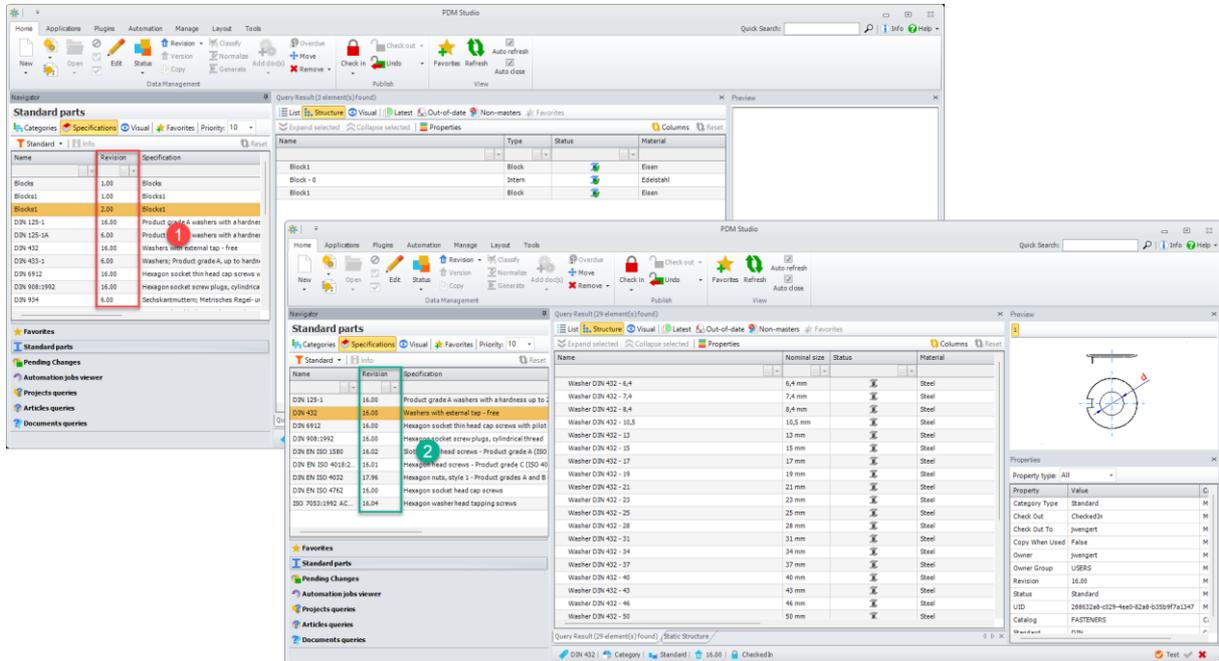


For this reason, a new event (3) plugin "Cancel copy (desynchronized links)" (6) has been implemented in the event Copy Documents (4) > Documents Filtered (5), which checks the assembly for broken internal links during copying and prevents the assembly from being copied if the check finds broken internal links.

In the event of such an incident, a repair option has also been implemented in the form of a [repair plugin in PDM Studio Automation Designer](#).

PDM Studio

Enhancement of the standard parts display setting

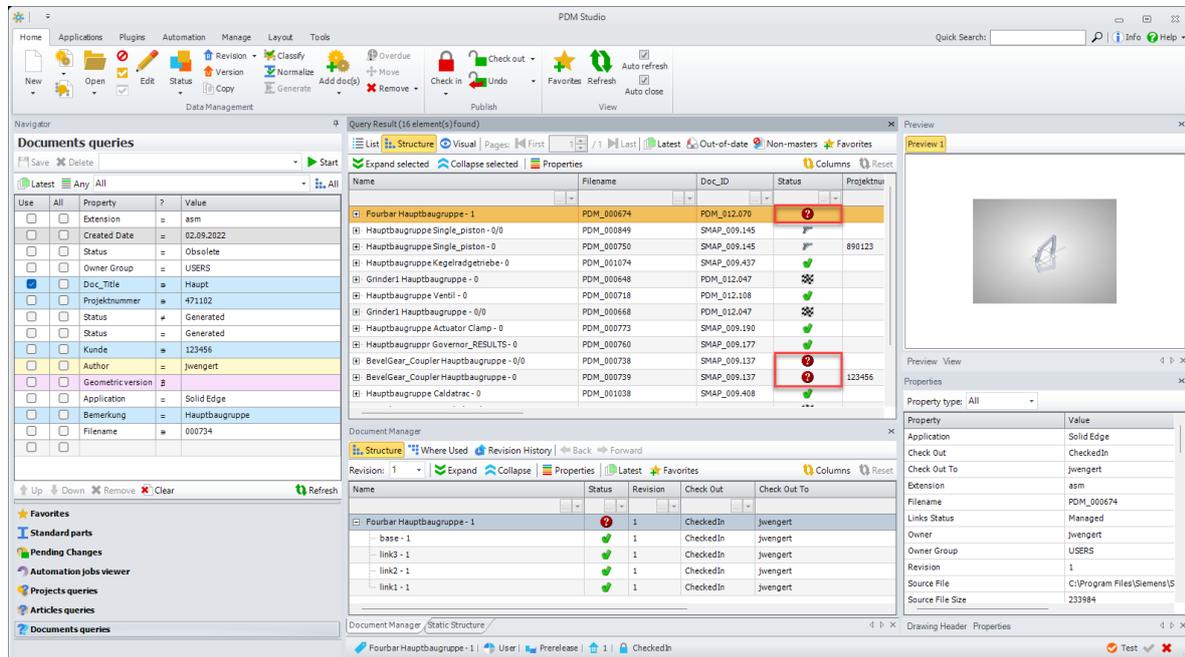


The result of the new setting "Only standard parts with a version higher than" can be seen in the picture above.

Point (1) shows the result when the setting is completely disabled (no checkmark set). All categories (including empty categories) are displayed here.

In **point (2)**, when the "Only standard parts with a version higher than" setting is enabled, only the categories that are greater than or equal to the value defined in the Client Administrator are displayed.

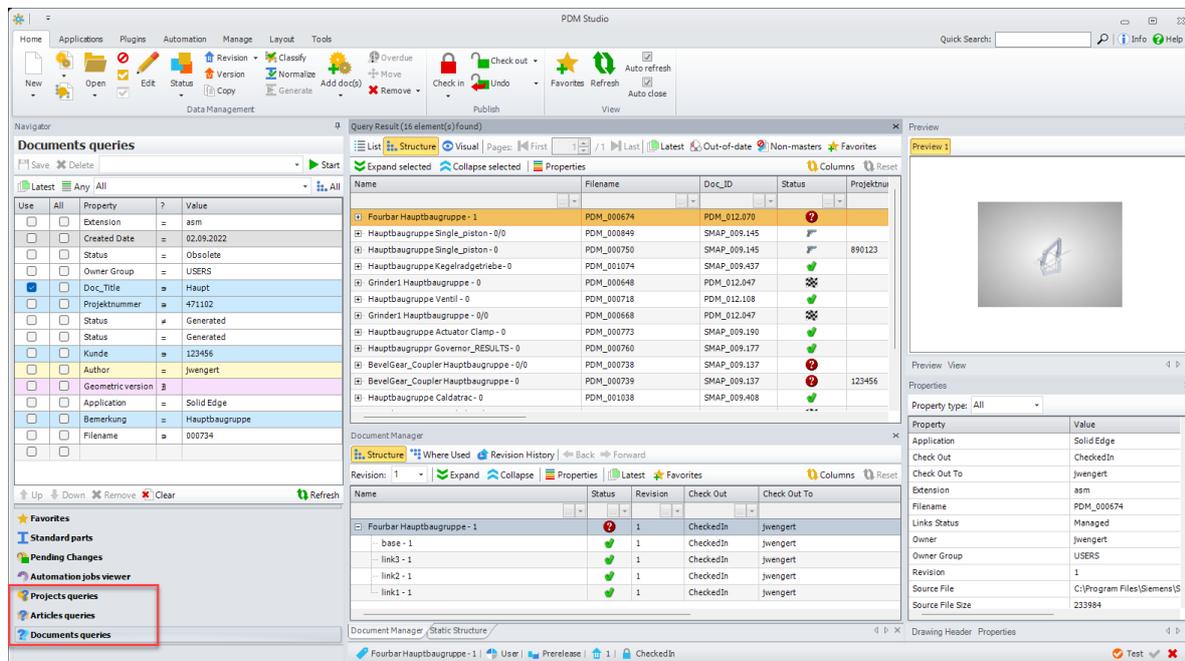
Default Icon for undefined property values



The "Prelased" status in PDM Studio now has the undefined properties icon in the Status group.

New Navigator tabs for document, project, and article queries

In the Navigator, document, project, and article queries have been separated into new tabs.



For better clarity and usability, the document, project, and article queries have been separated into new tabs.

See the image above (marked in red).

As an additional development in MP04, the search results of the individual document, project, and article queries are retained when switching between document, project, and article queries.

This means, for example, that if you run a project query, switch to the document query, run another query there, and then switch back to the project query, the result of the project query will still be available in the query result.

The same happens, if you switch back to the document query. The result of the previous query is also retained.

Adding prefixes and suffixes in the Multieditors

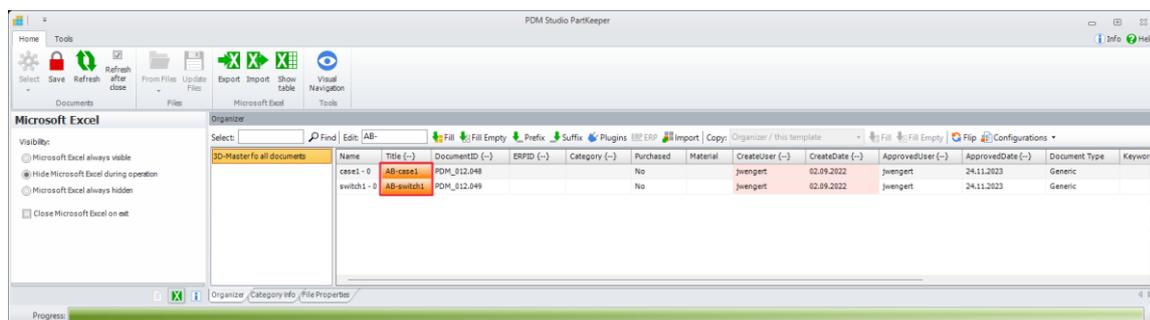
In MP04, the options for editing values in the multiten editors have been enhanced. It is now possible to add prefixes or suffixes to filled cells.

Note: You cannot insert a prefix/suffix into an empty cell.

Example Partkeeper



To add a prefix to cells, **select the desired cells (1)** and enter the **prefix text (2)**. Then select the **"Prefix" button (3)** to add the prefix.



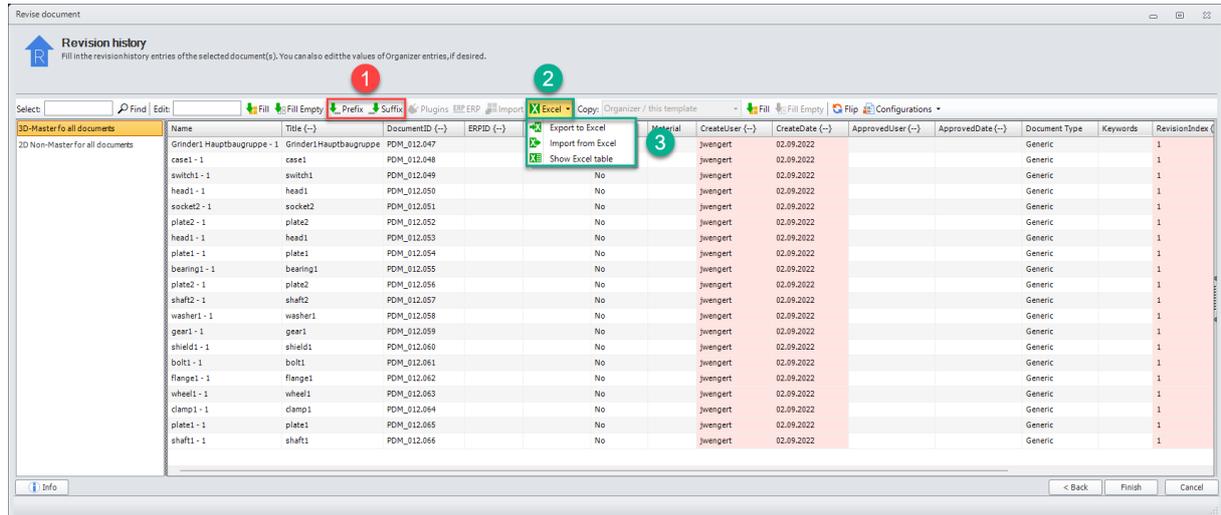
The prefix is added.

To **add the suffix**, follow the **same procedure as for the prefix**. **Select the desired cells (1)** and enter the **suffix text (2)**. Then select the **"Suffix" button (4)** to add the suffix.

Note: The "Add prefix" and "Add suffix" functions are also available in the "File Properties" and "Category info" tabs.

Example of Multieditors (revising, copying, status change, etc.)

In all multieditors, the new functions are located in the **last window before the wizard is completed**. For example, for the revision, this is the **"Revision history"** window, for the **copy** function, the **"Organizer"** window, for the status change, the **"Status history"** window.



In addition to the possibility of adding a **"Prefix"** and a **"Suffix"** (1), a new **"Excel"** selection window (2) has been implemented in ALL multieditors.

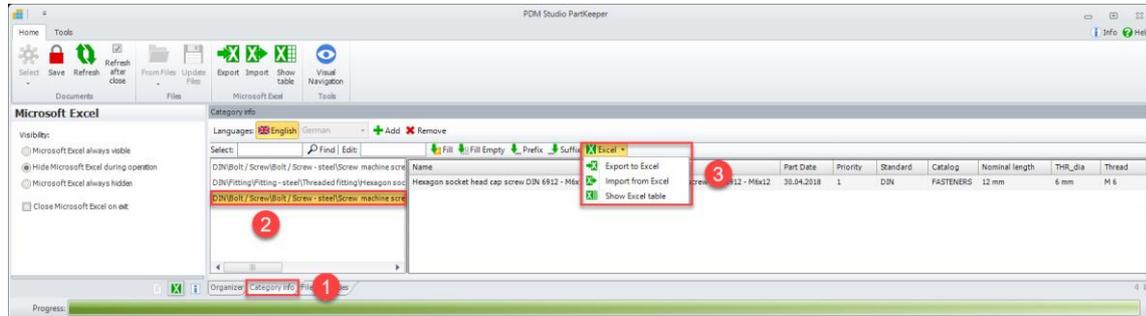
The included functions offer the possibility to write the displayed values into an Excel table using the **"Export to Excel"** function (3), as in the Partkeeper. In Excel, the values can be edited using the Excel functions, saved and re-imported using the **"Import from Excel"** function (3).

If an Excel file is created using the **"Export to Excel"** option, modified and imported again, and the editor window is not closed, it is possible to display the linked Excel table using the **"Show Excel table"** option (3). If you want to make further changes to the data in Excel, you will need to save the Excel spreadsheet in Excel and re-import it.

Note: The link to the Excel table ("**Show Excel Table**" function) only exists as long as you are in this PDM Studio window.

New feature to separately edit standard part Category info in Partkeeper

If the multiple selection contains standard parts, you can now edit them separately in Partkeeper using Microsoft Excel.



To do this, go to "Category info" (1) in Partkeeper, select the "Standard category" (2) and export the displayed standard parts to an Excel file (3).

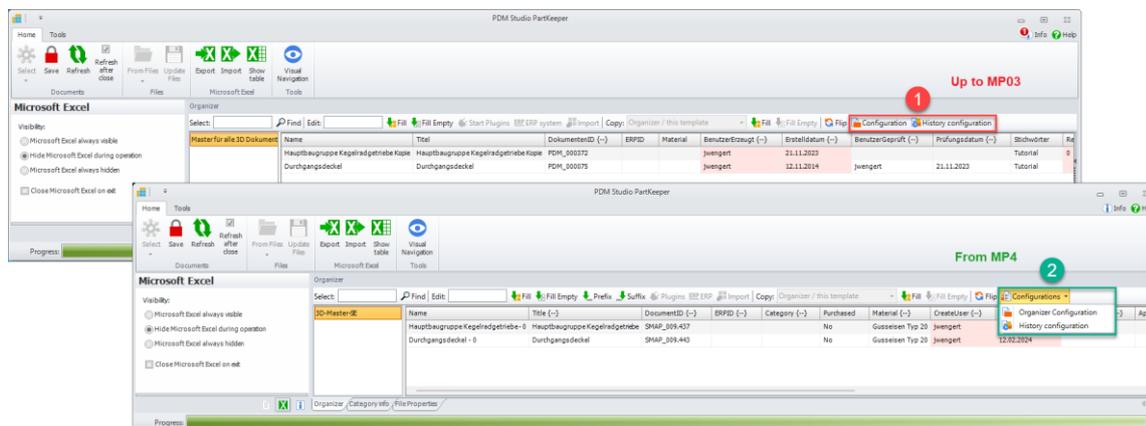
In Excel, the values can be edited using the Excel functions, saved in Excel and re-imported using the "Import from Excel" function (3).

If an Excel file is created using the "Export to Excel" option, modified and imported again, and the Partkeeper window is not closed, it is possible to display the linked Excel table using the "Show Excel table" option (3). If you want to make further changes to the data in Excel, you will need to save the Excel spreadsheet in Excel and re-import it.

Note: The link to the Excel table ("Show Excel table" function) only exists as long as you are in the Partkeeper window.

Important: The logged-in user must have the necessary permissions to edit standard parts. The permission to edit standard parts MUST also be set in the PDM Studio Server Administrator.

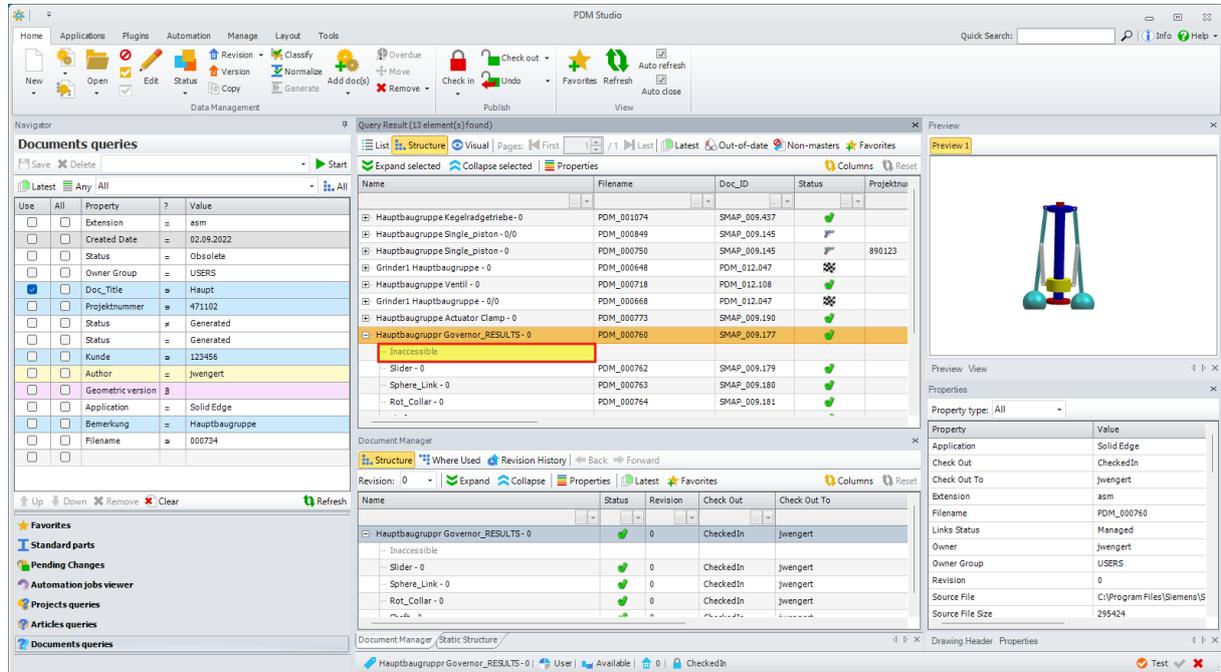
Configurations has been merged in the Multieditor



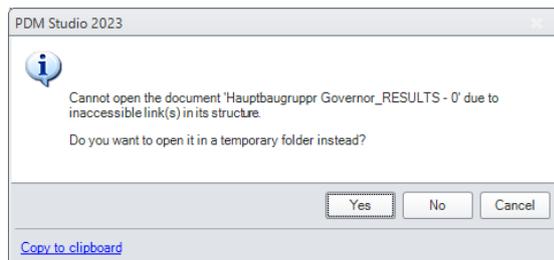
To improve clarity, MP04 has merged "Configuration" and "History Configuration" (1), as shown in the figure above, to form a single expandable menu item called "Configuration" (2).

Opening Assemblies with inaccessible links

Previously, it was not possible to open assemblies with inaccessible links. MP04 introduced the ability to open assemblies with inaccessible links in the temporary folder in read-only mode.



In our example, the assembly contains a component (marked in red and shown as “Inaccessible”) that the user does not have access to. When the assembly is opened, a new dialog appears.

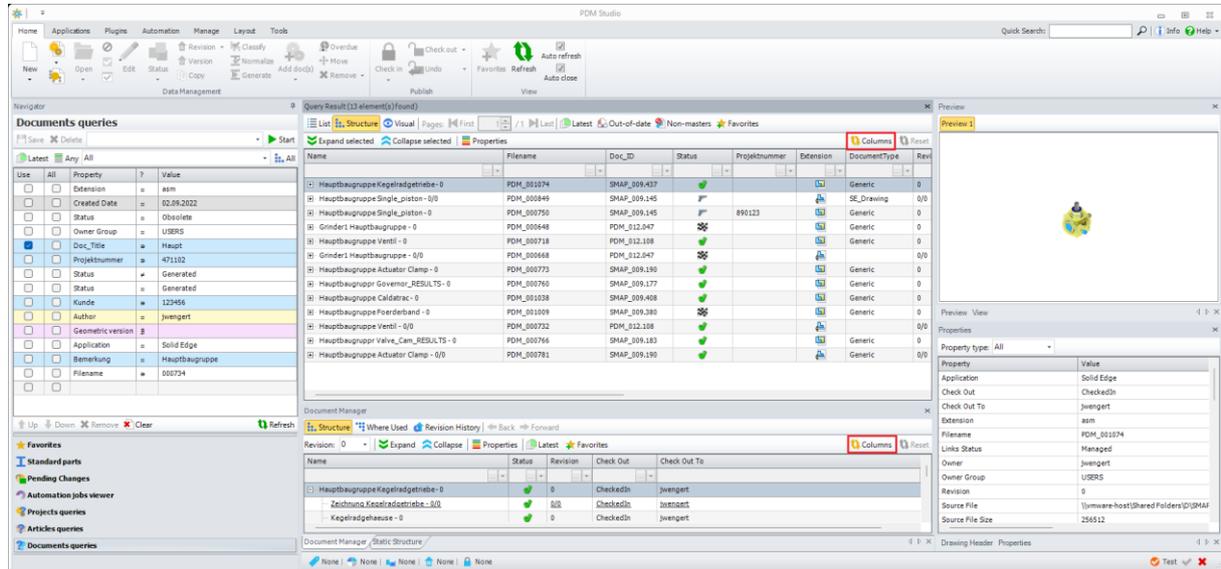


This dialog lets you decide whether or not to open the assembly in the temporary folder. “Yes” will open the assembly in the temporary folder. “No” or “Cancel” will check out the assembly but not open it.

Important: Even if the assemblies are checked out, it is not possible to modify the assemblies because they are stored in a temporary folder. This means that I can add or delete components and save them. However, the changes are NOT transferred to the server, even if it seems possible, because the Check In/Close and Check In/Out functions are available.

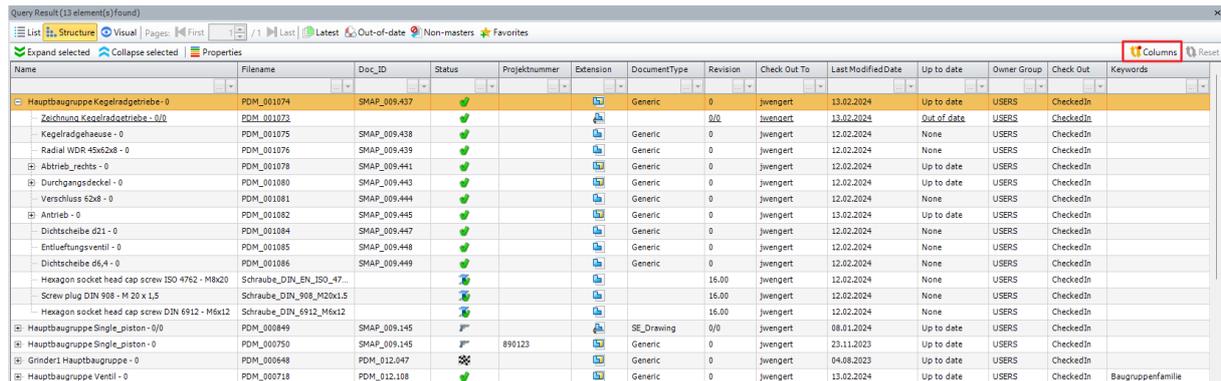
Update of columns in different windows can be switched on and off

For example, a standard part and a single part have different properties than an assembly. This can affect how columns appear in different windows.

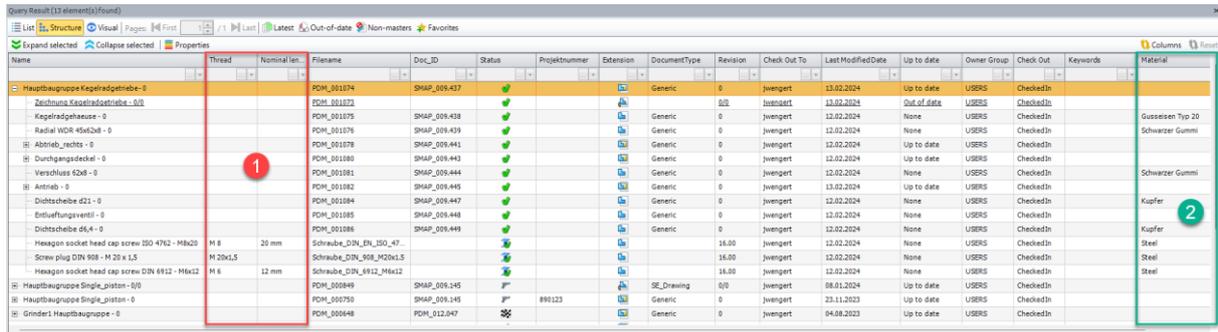


For this reason, the "Columns" functionality (marked in red in the image above) has been extended. It allows to update columns (depending on the query executed) when displaying different document types in different windows such as Query Result, Structure, Where Used, Document Manager and Static Structure.

For example, if you search for **title and assemblies**, as shown in the image above, all assemblies that match the search query will be displayed along with their properties.



However, if I have expanded the assembly as shown in the figure above, the symbol for the "Columns" function changes. The function is now displayed with a red dot. This means that there are documents in the structure, such as parts and standard parts, that have additional property columns, but they are not currently displayed because the query was related to finding assemblies.



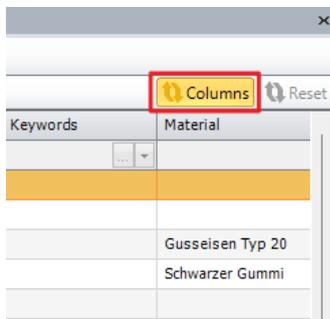
Name	Thread	Nominal len	Filename	Doc_ID	Status	Projektnummer	Extension	DocumentType	Revision	Check Out To	LastModifiedDate	Up to date	Owner Group	Check Out	Keywords	Material
Hauptbaugruppe Kegelnutgetriebe-0			PDM_001074	SNAP_009437	✓			Generic	0	Jwengert	13.02.2024	Up to date	USERS	CheckedIn		
Zwischenflansch Kegelnutgetriebe - 0/0			PDM_001073		✓			Generic	0/0	Out of date	13.02.2024	Out of date	USERS	CheckedIn		
Kegelnutgetriebe - 0			PDM_001075	SNAP_009438	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		Gusseisen Typ 20
Radial WKM 45x20x2 - 0			PDM_001076	SNAP_009439	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		Schwarzer Gummi
Abtrieb_gerade - 0			PDM_001078	SNAP_009441	✓			Generic	0	Jwengert	12.02.2024	Up to date	USERS	CheckedIn		
Durchgangsbohrloch - 0			PDM_001080	SNAP_009443	✓			Generic	0	Jwengert	12.02.2024	Up to date	USERS	CheckedIn		
Verchluss 62x8 - 0			PDM_001081	SNAP_009444	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		Schwarzer Gummi
Antrieb - 0			PDM_001082	SNAP_009445	✓			Generic	0	Jwengert	12.02.2024	Up to date	USERS	CheckedIn		
Dichtscheibe d21 - 0			PDM_001084	SNAP_009447	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		Kupfer
Entlüftungsventil - 0			PDM_001085	SNAP_009448	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		
Dichtscheibe d5,4 - 0			PDM_001086	SNAP_009449	✓			Generic	0	Jwengert	12.02.2024	None	USERS	CheckedIn		Kupfer
Hexagon socket head cap screw ISO 4762 - M8x20	M 8	20 mm	Schraube_DIN_EN_ISO_47...		✓				16.00	Jwengert	12.02.2024	None	USERS	CheckedIn		Steeel
Screw Plug DIN 913 - M 20 x 1,5	M 20x1,5		Schraube_DIN_913_DIN45...		✓				16.00	Jwengert	12.02.2024	None	USERS	CheckedIn		Steeel
Hexagon socket head cap screw DIN 9132 - M8x12	M 8	12 mm	Schraube_DIN_9132_M8x12		✓				16.00	Jwengert	12.02.2024	None	USERS	CheckedIn		Steeel
Hauptbaugruppe Single_piston-0			PDM_000949	SNAP_009345	✓			SE_Drawing	0/0	Jwengert	08.01.2024	Up to date	USERS	CheckedIn		
Hauptbaugruppe Single_piston-0			PDM_000750	SNAP_009345	✓	899123		Generic	0	Jwengert	23.11.2023	Up to date	USERS	CheckedIn		
Grinder1 Hauptbaugruppe - 0			PDM_000648	PDM_012047	✗			Generic	0	Jwengert	04.08.2023	Up to date	USERS	CheckedIn		

To view the other columns related to "Standard Part" (1) and "Parts" (2), press the "Columns with Red Dot" function.

When I collapse the assembly in our example, the column icon is shown again with a red dot, and after pressing the "Columns" function, the properties of the parts and standard parts disappear from the display and only the properties of the assembly are shown again.

Note: By default, only columns with values are displayed. If all columns are to be displayed (even those that are empty), this must be enabled in the Client Administrator (Settings > Properties to view > "Show all empty predefined columns").

The "Columns" function is turned off by default. In this state, the "Columns" function is displayed with a "red dot" if there are columns that can be optionally displayed.



In addition to the manual mode described above, the "Columns" function itself also has an automatic updated mode. Clicking the "Columns" button activates the automatic update mode. See the image above.

The "Columns" function will then be displayed in "Orange" (automatic update mode enabled).

In this state, the optional additional columns are automatically loaded and displayed if they are available. Manual updating as described above is no longer necessary.

Note: The automatic update mode might have a negative impact on the performance of your computer.

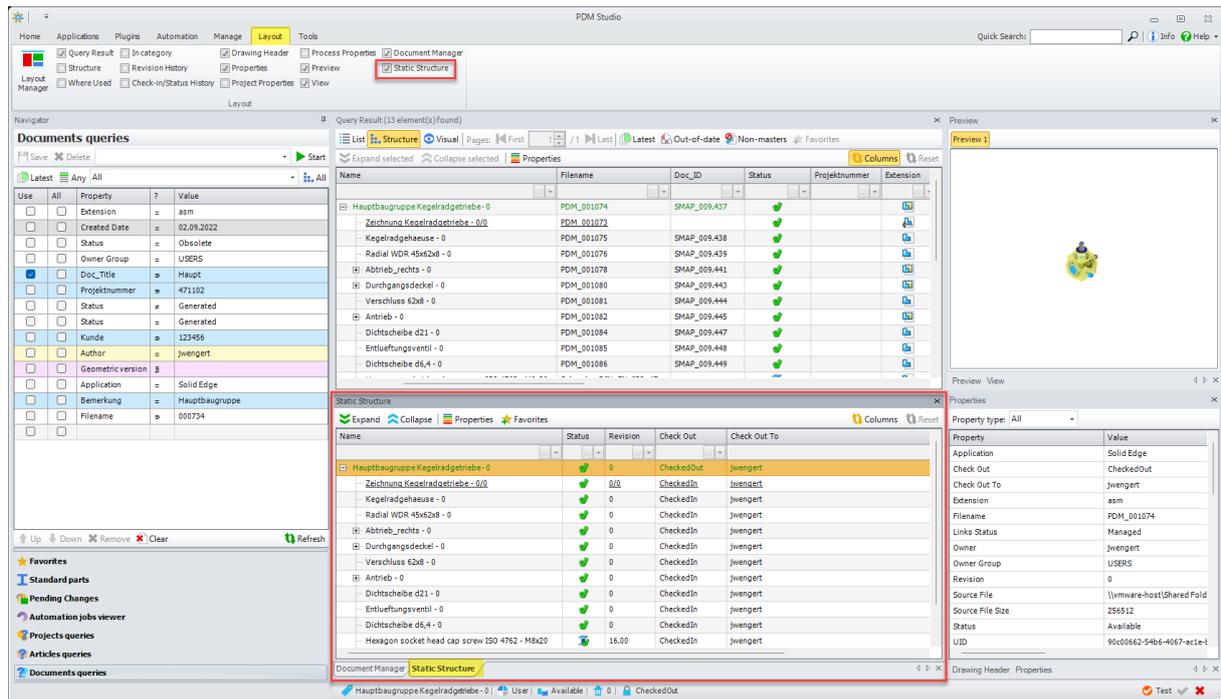
Important: The new feature is only active if the "Show all empty predefined columns" option is deselected in the Client Administrator under Preferences > Properties to view.

New windows „Static Structure“

MP04 introduces a new "Static Structure" window in PDM Studio.

The new "Static Structure" window in PDM Studio shows the structure of the document that is active in the supported application and is being fed by it.

Note: The display in the "Static Structure" window does not yet support XMLI connected systems such as Autodesk Inventor, Siemens NX, and Smap3D P&ID.



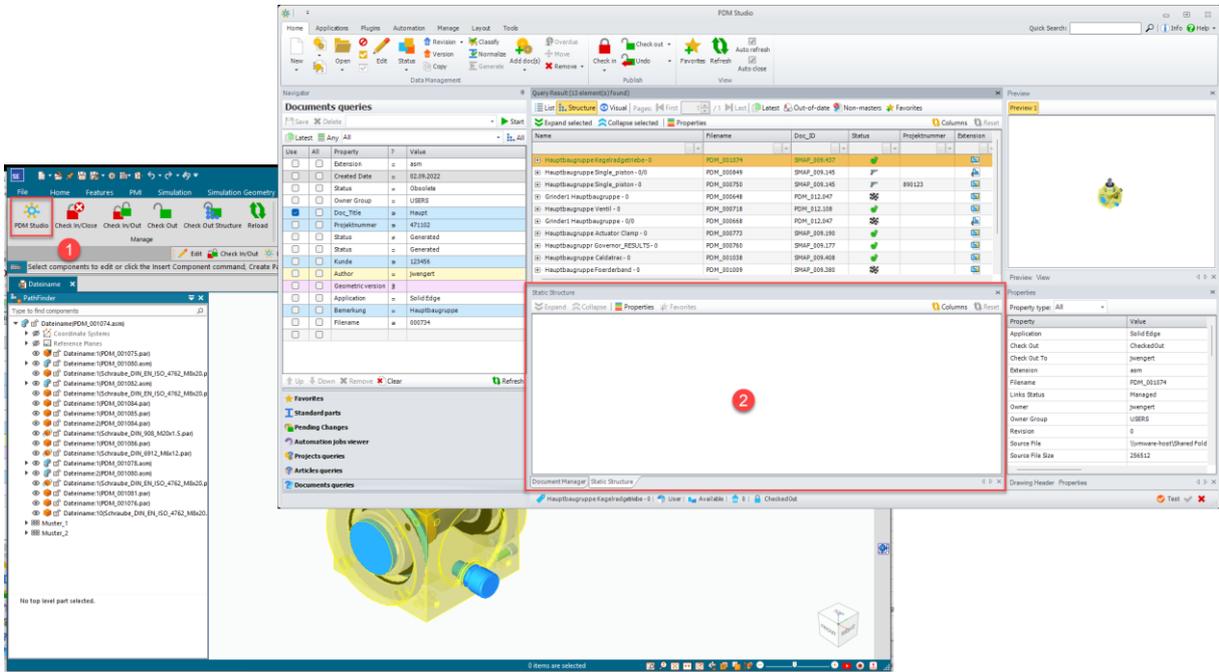
The **Static Structure** window is enabled or disabled in the "Layout" tab (see image above).

The main difference between the current Structure window (query result) and the new Static Structure window is that the content displayed in the Static Structure window is **NOT** an output of the document, project or article query. The content is only supplied or modified by the supported external applications.

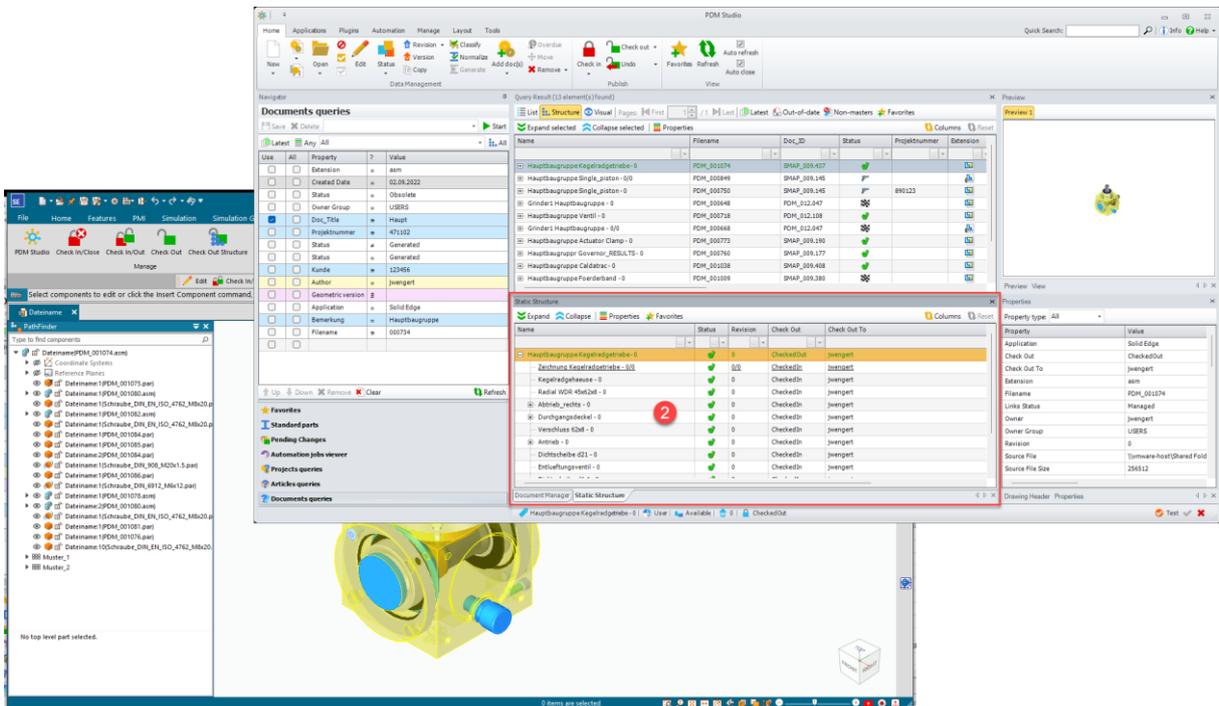
Note: After each restart of PDM Studio, the "Static structure" window is empty.

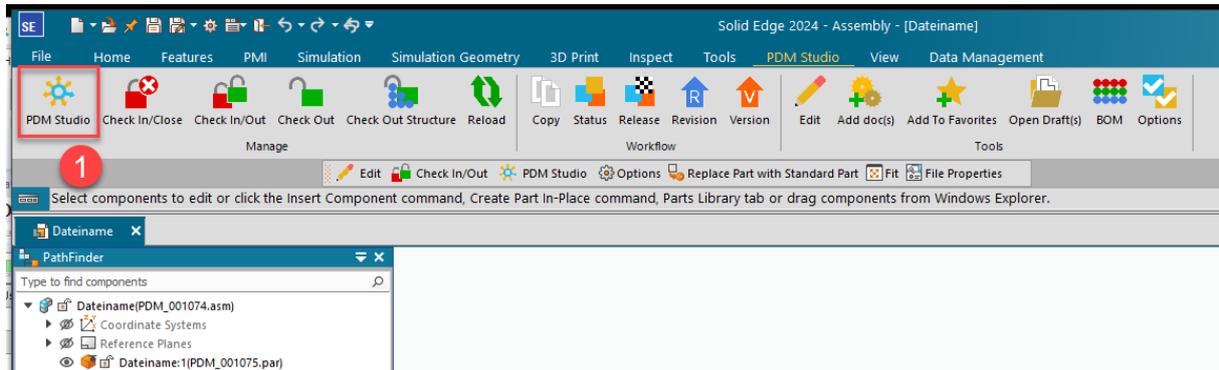
Feeding the Static Structure window

To fill the "Static Structure" window, a document, e.g. an assembly, must first be opened in one of the supported applications.



If you click the "PDM Studio" button (1) on the PDM Studio tab when the assembly is open, the application now delivers the assembly into the "Static Structure" window (2).

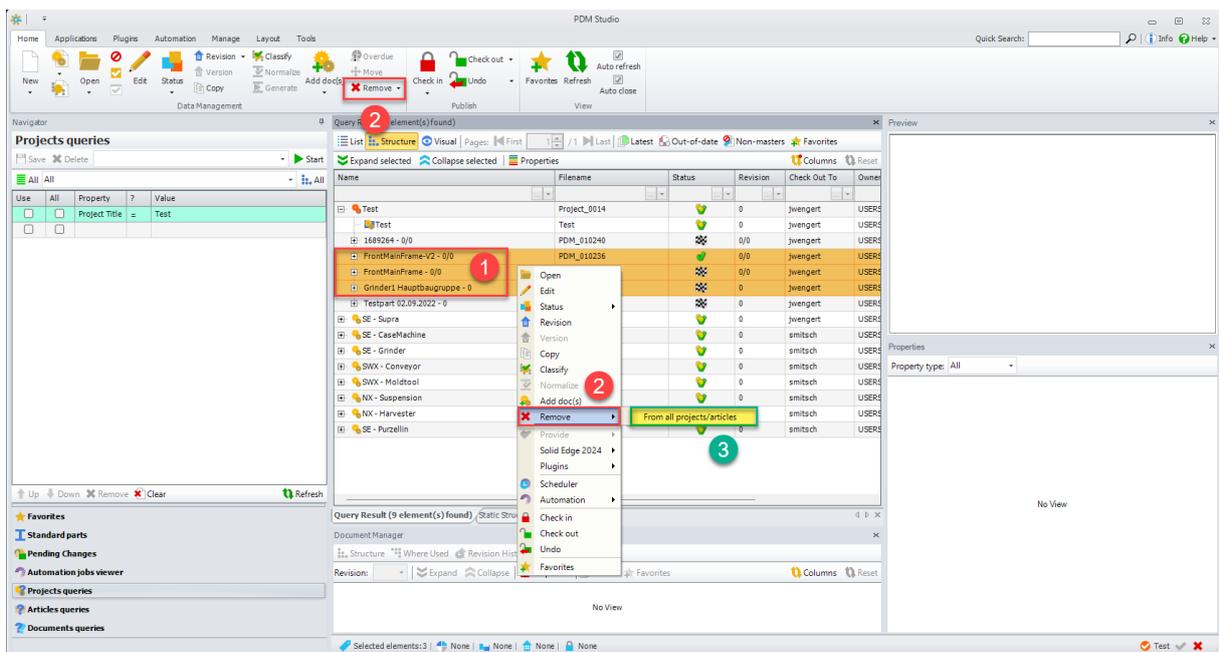




The content of the "Static Structure" window in PDM Studio is **only updated again** when the user clicks on the "PDM Studio" button (1) in the "PDM Studio" tab of the supported application.

The Remove documents from project(s) function now supports multiselection.

With MP04, Multiselect was also extended to include removing documents.



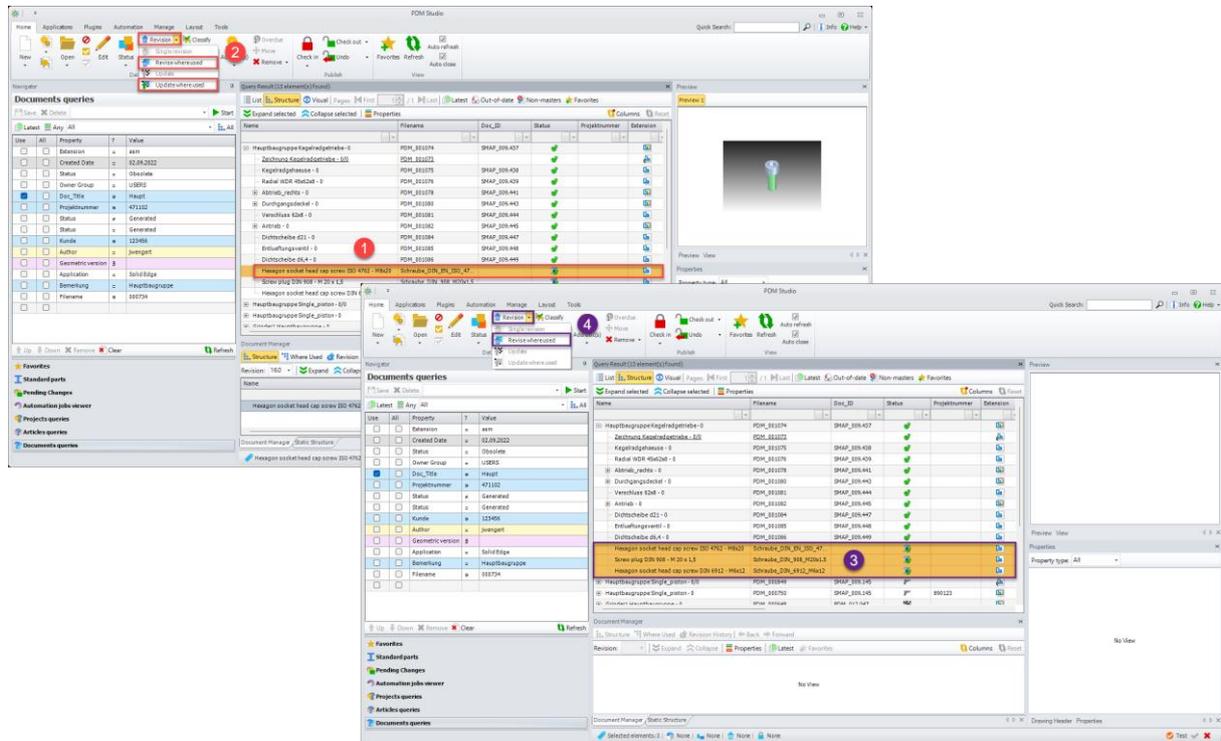
To do this, **select the desired documents using the multiple selection (1)**, right click on the selection to open the context menu. Then click on "Remove" (2) and select "From all projects/articles" (3) from the context menu. Alternatively, you can use the "Remove" (2) function on the "Home" tab of the toolbar after multiple selection.

Note: You can use the shortcut keys to select individual files: Press and hold the "Ctrl" key. Use the mouse pointer to click on the files you want to add to the selection.

Select a range: Press and hold the "Shift" key. Select the start file with the left mouse button. Then use the left mouse button to select the end file. You have now selected a section.

"Revision" and "Revise- or Update where used" support for standard parts

In MP04, support was added for the "Revision", "Revise where used", and "Update where used" wizards for standard parts.



Functions (2), (4) are enabled differently depending on whether a single standard part or a multiple selection of standard parts is/was selected.

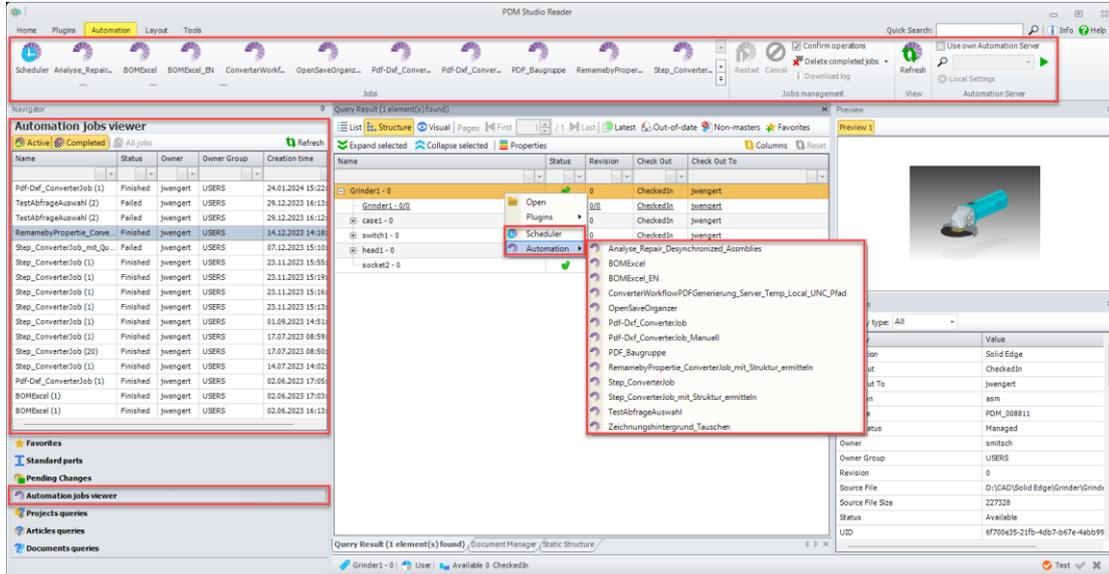
If a single standard part is selected (1), the functions "Revision", "Revise where used" and "Update where used" (2) are available.

When multiple standard parts are selected (3), only the "Revision" and "Revise where used" (4) functions are available.

Note: The "Revision", "Revise where used", and "Update where used" functions are NOT available when user documents AND standard parts are selected together in the multiple selection.

PDM Studio Reader

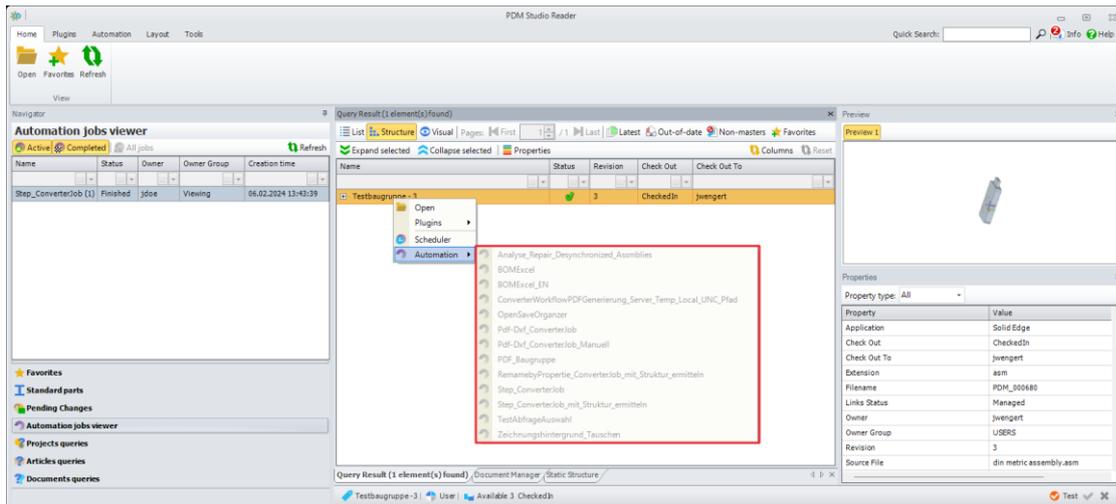
Integration of the PDM Studio Automation Module into the PDM Studio Reader



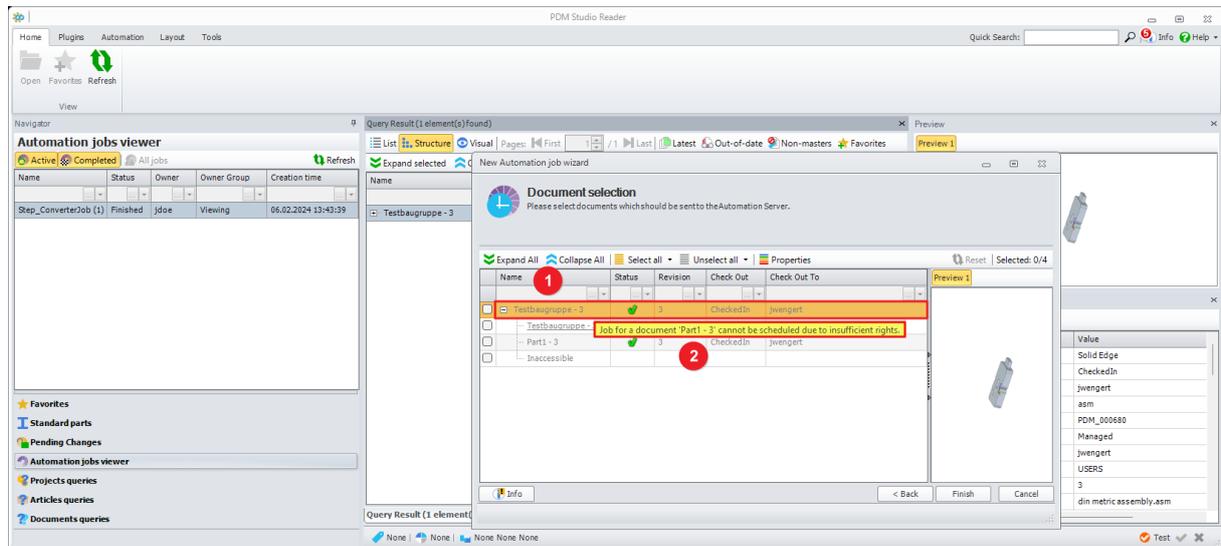
With the MP04, access to the PDM Studio Automation module has been integrated into the PDM Studio Reader. **The functionality is the same as in PDM Studio.**

Restrict Automation Access

With the introduction of the new "[Automate](#)" permission in the Client Administrator, it is now possible to allow or deny access to the Automation Server for specific user groups at the document level in PDM Studio Reader (and of course in PDM Studio itself).



As described in the [Status linkage example](#), two groups, "**View**" and "**Sales**", have been created. The "**Viewing**" group does not have Automation access to the "**Available**" and "**Released**" statuses, and therefore **cannot send requests for documents with these statuses to the Automation Server. The workflows are grayed out** (see figure above).



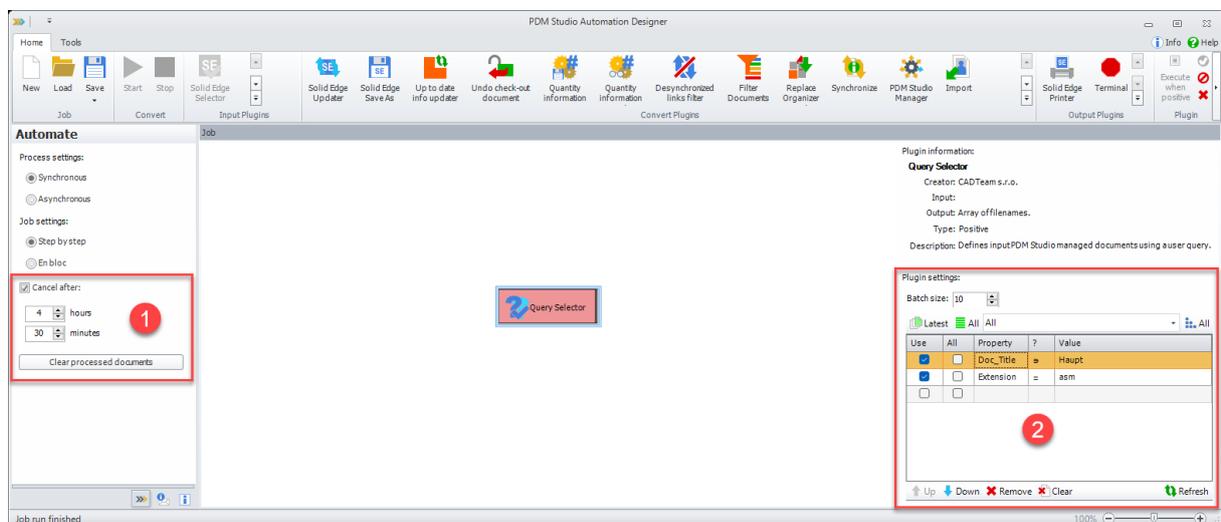
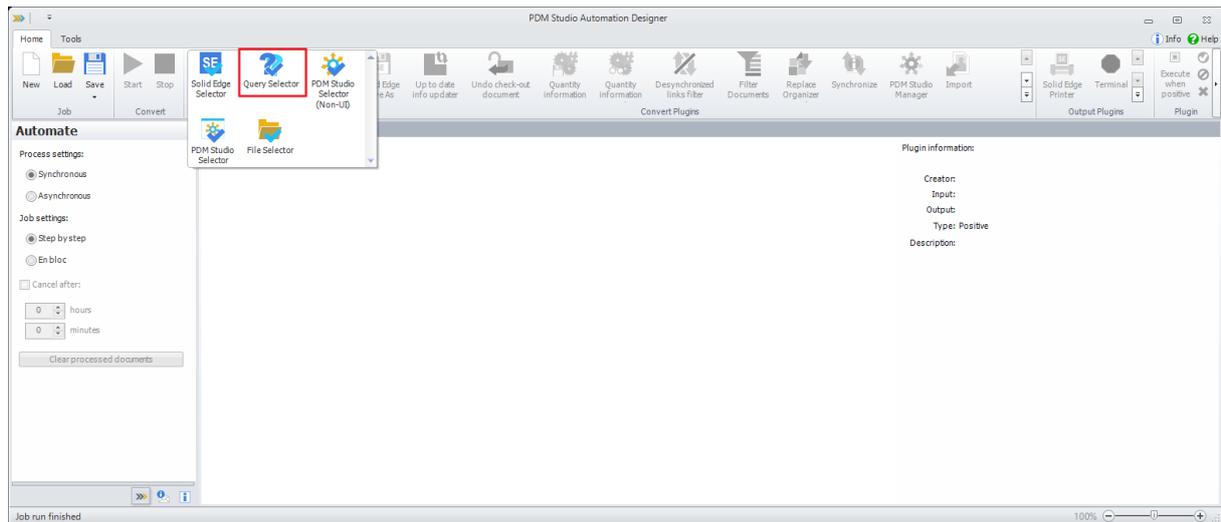
If a **document (1)** is to be sent from the **status blocked for Automation access** via the “Scheduler”, the user receives the information that the job cannot be scheduled due to "insufficient rights..." (2) (see figure above).

Important: If the user has the "Automate" permission for a document status, he or she can execute all available workflows for the document. It is currently not possible to release or block individual requests (workflows).

PDM Studio Automation Designer

New Automation plugin "Query Selector"

With MP04, a new automation plugin called "Query Selector" has been added, which allows the selection of input documents via a defined query and supports the automatic termination of jobs after a certain time (hours + minutes).



When the new "Query Selector" plugin is defined as an input plugin, the "Cancel after" option (1) is enabled. This option allows jobs started with this plugin to be automatically cancelled after the defined time has elapsed.

The plugin allows you to search for documents managed by PDM Studio. The result of the search is specified as output **using a query** (2). Documents are selected from the database and provided as records, based on the definition of properties within the defined query.

The following settings are possible:

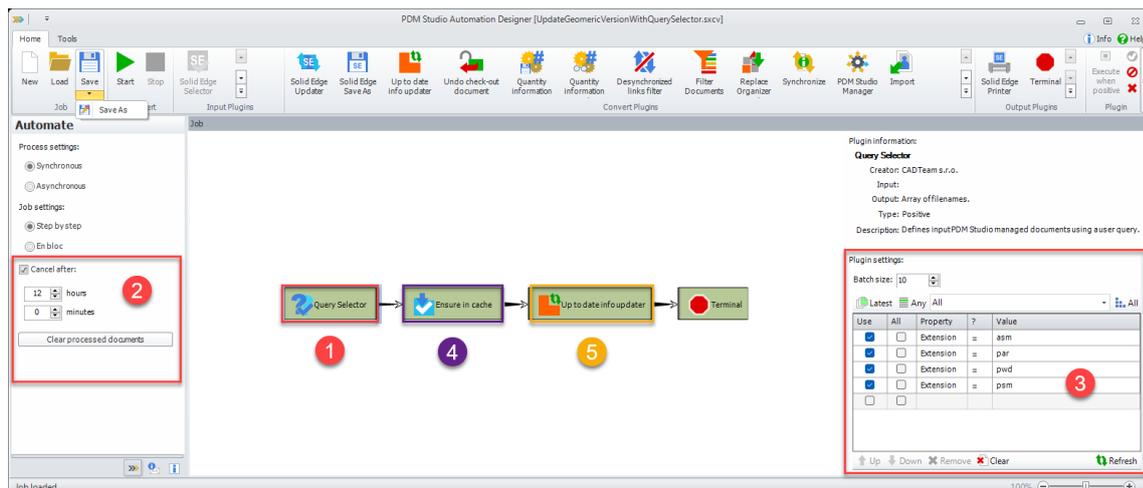
Batch size - determines the batch size (number of documents per batch) according to which the documents (matching the query criteria) will be processed by the following plugins. An abort always occurs after the current batch has been processed.

Example: If 100 documents are to be processed and the batch size is 10, 10 batches of 10 documents will be created and processed in batches.

Important: The plugin only returns the desired information from the defined query as records (as with queries in PDM Studio). It does NOT load the files into the local cache for processing.

For this reason, if the files are to be physically processed further, the "Ensure in cache" plugin must be added downstream. This plugin ensures that the documents in its input are available in the local (client) cache. If a document is not available in the local cache, the plugin ensures that it is downloaded there. If the document is available in the local cache but is not up to date, the plugin will update the document.

Example:



In this example, a runtime of 12 hours is defined for the workflow with the "Query Selector" input plugin (1) (2). At the end of the 12 hours, the workflow is automatically terminated.

The records delivered by the "Query" (3) in the "Batch size" of 10 records per package are forwarded to the "Ensure in Cache" plugin (4). This ensures that the files are downloaded to the local cache for processing.

Once this is done, the data is passed to the "Up to date info updater" plugin (5) for final processing.

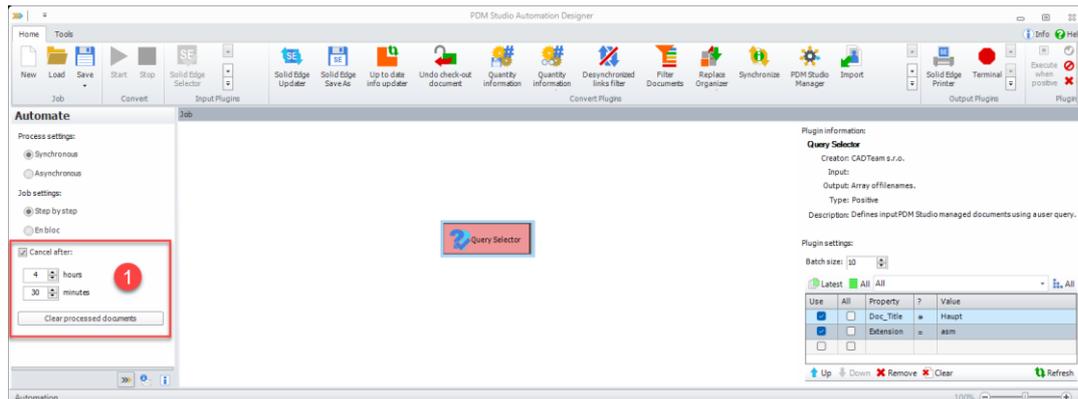
If the workflow has not completely processed the documents within the specified runtime and has been terminated, it can be resumed at any time (e.g., next weekend). See "[Resuming processing](#)".

Very important: The "Query Selector" input plugin is used to run workflows that need to be run directly from the Automation Designer. As the input documents are selected via the "Query Selector" plugin, it is not suitable as an input plugin for use in a workflow from PDM Studio, as at least one document is

always sent as input to the desired workflow in PDM Studio. If the workflow were run from PDM Studio, we would have two inputs in the workflow, one from PDM Studio and a subsequent one from the plugin itself. This would result in an error.

Cancellation of running bulk orders after a certain time period

With MP04, an option has been introduced for specific input plugins to temporarily interrupt running bulk jobs after a certain time (hours + minutes) if needed.



This is important, for example, when jobs (such as updating documents without geometric versions, replacing drawing backgrounds, etc.) run for several hours or days and would block the Automation Server during normal operation. For example, the workflow can be started on Friday evening before closing time and temporarily stopped (interrupted) after 60 hours.

Cancel job

This setting is only available for input plugins that support this feature (currently only the "Query Selector" plugin):

- **Cancel after** - Activate this option and specify when the job should be automatically terminated (in hours and/or minutes).
- **Clear processed documents** – While the job is running, the documents that have already been processed are written to a list file. When the job is restarted, the documents listed in the list file are recognized as already processed and skipped.
- **If the list file is deleted** using the "Clear processed documents" function (1), the documents that have already been processed will be processed again when the job is restarted.

Important: When you select this option, you will be asked if you want to perform the action before deleting. If you select "Yes", the contents of the list file will be deleted, if you select "No", the operation will be cancelled.

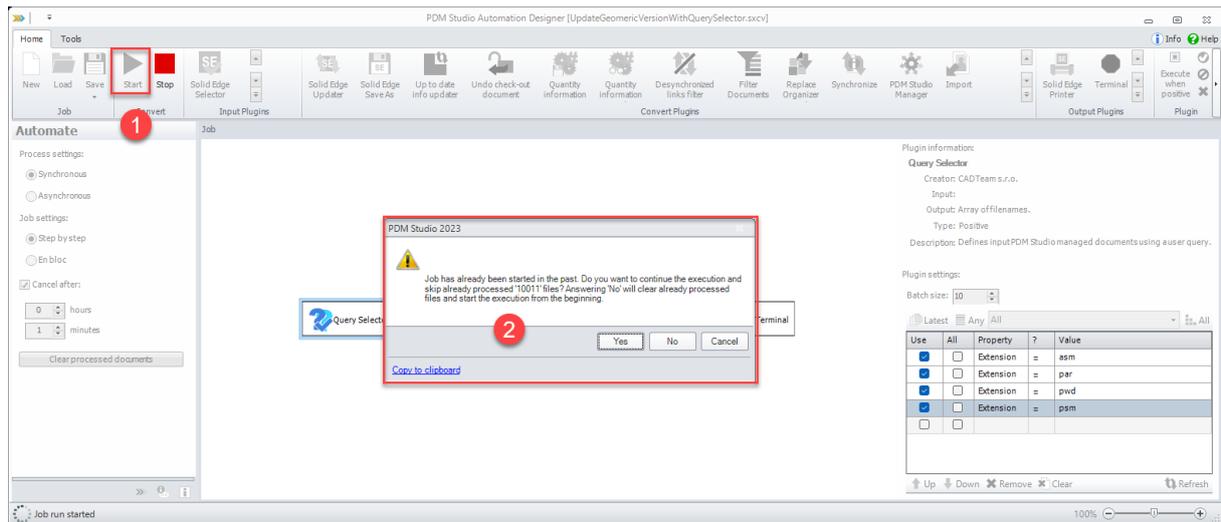
Important: However, if the parameters in the workflow change, the documents already processed must be deleted from the list file, because the documents already processed must be processed again due to the parameter change.

Note: It is possible to stop the current job manually at any time by clicking the "Stop" ■ command (on the ribbon bar). It is important to know that the currently running processing is completed before the job is stopped.

Resuming processing

If the workflow is **stopped after the specified time** or by clicking the „**Stop**“  button on the ribbon, it can be restarted at any time (e.g., next weekend, assuming the workflow has not been modified).

To resume, the list of documents already processed must not have been deleted using the "**Clear processed documents**" function (1).



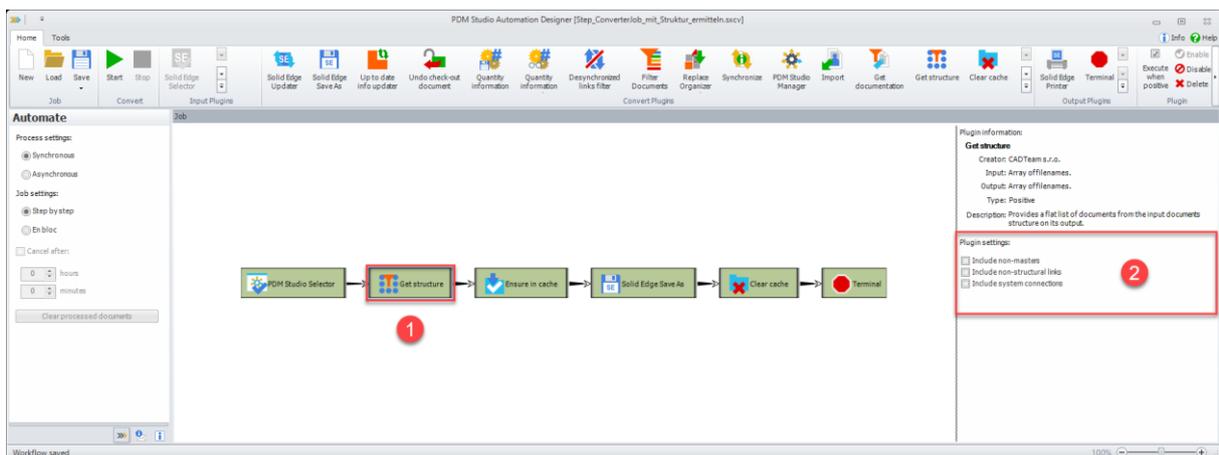
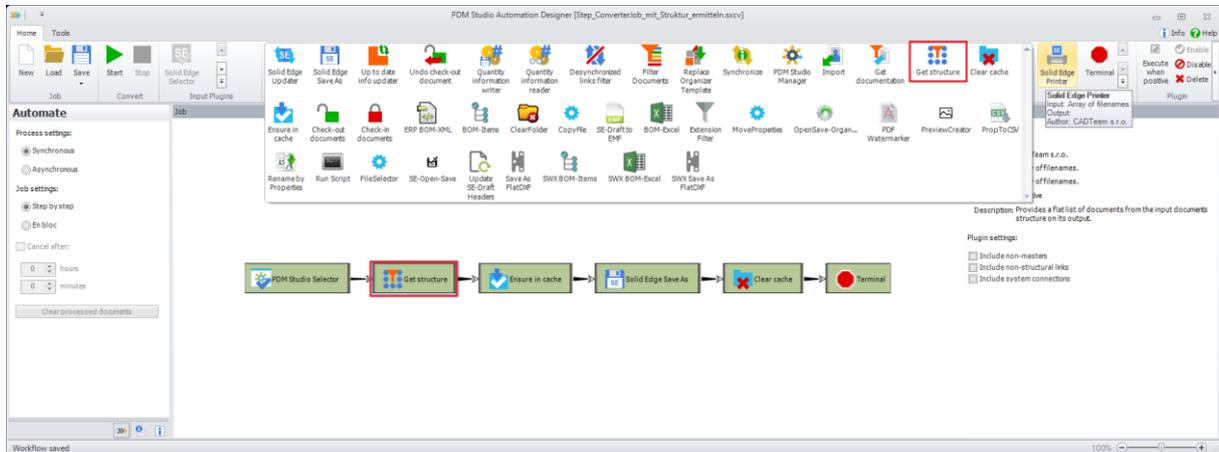
To continue processing, click on the "**Start**"  button (1).

A **dialogue box (2)** will appear informing you that, in our example, **10011 files have already been processed** during the **specified time** (or until the job is cancelled).

If you answer "**Yes**", the **10011 files already processed will be skipped** and the **job will continue**. If you answer "**No**", the **files already processed will be deleted from the list file** and the **job will start again from the beginning**. "**Cancel**" cancels the process.

New automation plugin "Get structure"

A new automation plugin with the name "Get structure" has been added.



As **output**, this plugin converts the input document structure into a **list of documents**.

By enabling the appropriate option(s), you can configure the plugin to add the following elements to the document structure:

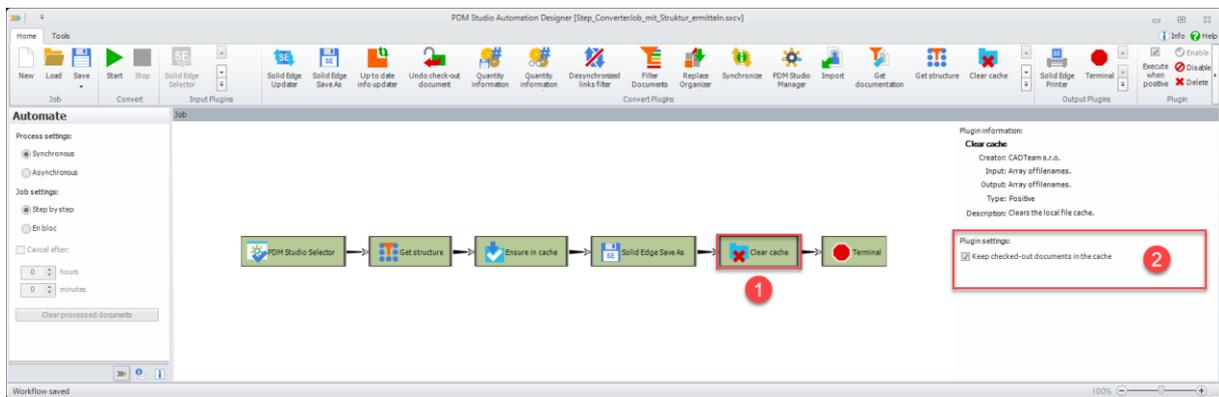
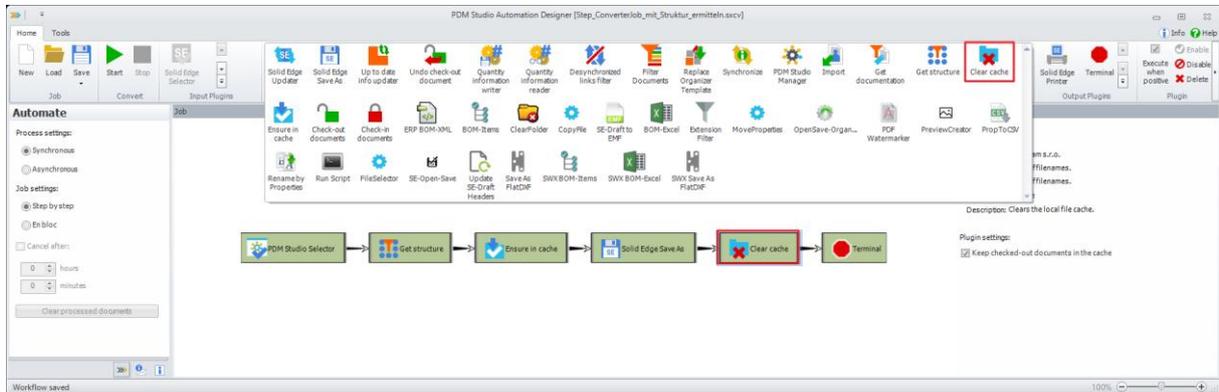
- Include non-masters (Drawings)
- Include non-structural links (i.e. Interpartlinks)
- Include System connections (i.e. Manually added links to Word, Excel, PDF, DXF documents etc. in PDM Studio.)

Important: The plugin is a pure data plugin, i.e., it returns a set of documents that can be processed further. It does not load the documents into the local cache.

For this reason, the "Ensure in cache" plugin must be added downstream if the files are to be physically processed. This plugin ensures that the documents in its input are available in the local (client) cache. If a document is not available in the local cache, the plugin will ensure that it is downloaded from there. If the document is available in the local cache but is out of date, the plugin updates the document.

New Automation plugin "Clear cache"

A new automation plugin with the name "Clear cache" has been added.



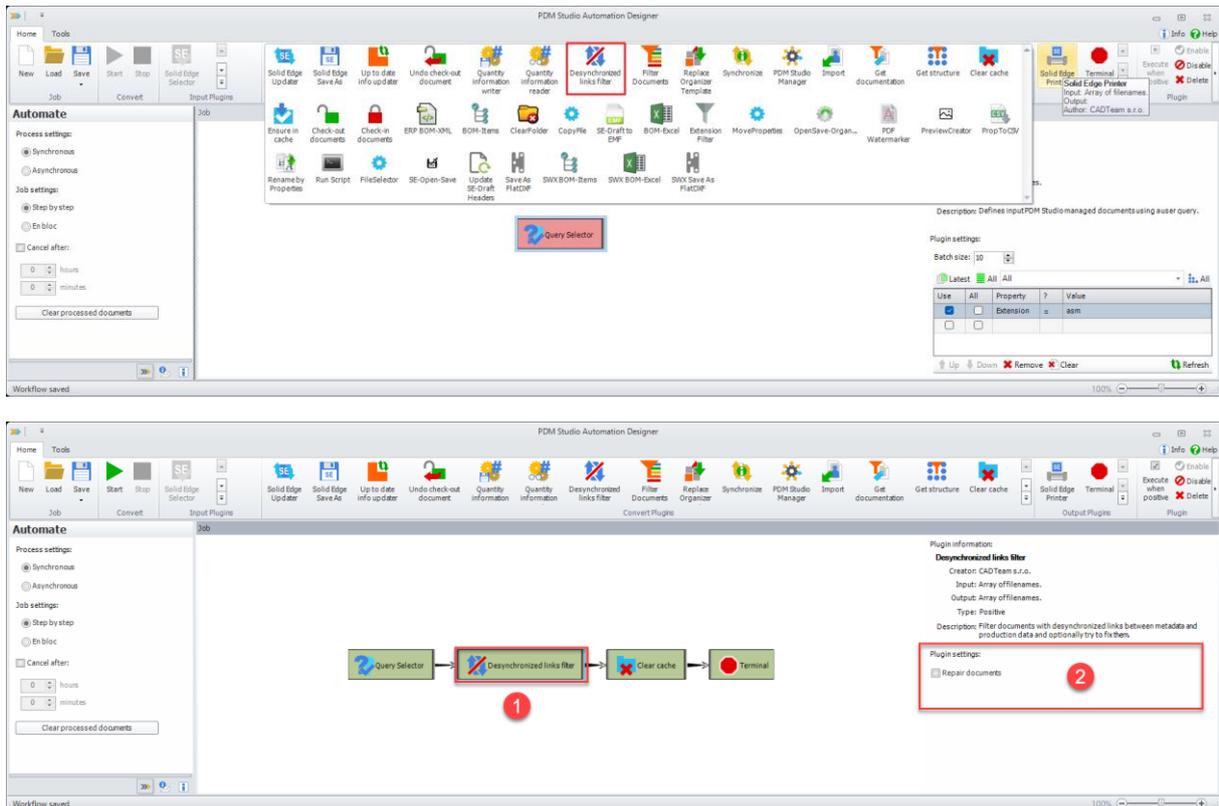
This plugin deletes all documents from the local cache (in our example, before the workflow is completed).

If you enable the "Keep checked out documents in local cache" option, **only the checked out documents will be kept**, all other documents will be removed from the cache.

The **checkbox is selected by default**, which means that all checked-out documents are automatically retained in the cache unless otherwise specified.

New Automation plugin "Desynchronized links filter"

A new Automation plugin has been introduced for the Administrator to check the correct link order in an assembly called "Desynchronized link filter", which can be used to repair desynchronized links of production data and metadata.



The purpose of this plugin is to detect and filter out documents with desynchronised (mismatched) links between their metadata and production data.

If the links between the metadata and the production data are incorrect, this can lead to problems when copying desynchronised documents that are part of an assembly, for example - the copy of the assembly may be damaged.

Activate the optional "Repair documents" checkbox (2) to repair the links (if possible) through automatic synchronisation.

Important: Repairing documents will not work if the desynchronisation was caused by something other than inconsistent links (e.g., incorrect production data).

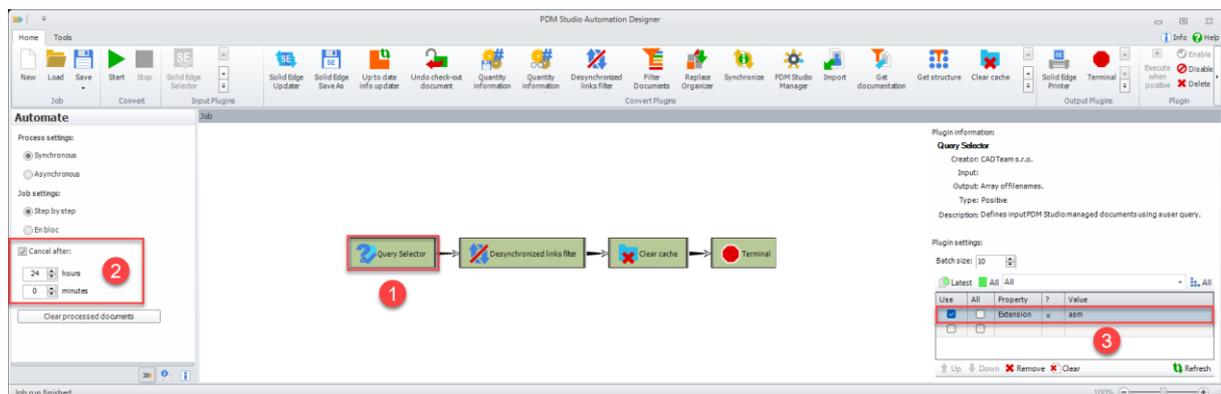
Very important: The plugin should only be used in the workflow with the "Query Selector" input plugin and should only be executed in the Automation Designer, as it searches the entire database (in our example for all assemblies). This process can take a very long time (depending on the number of existing assemblies). By using the "Query Selector" input plugin, the runtime of the workflow can be specified and resumed at any time.

Example workflow Analysis:

The log is written to the file "C:\Users\[USER]\AppData\Roaming\CAD_Partner_GmbH\PDM 2023\AutomationDesigner.exe.sxlog". It is recommended to delete the log file before starting the analysis. This means that when the log is analyzed later, only the entries from the current analysis run will be available in the log file.

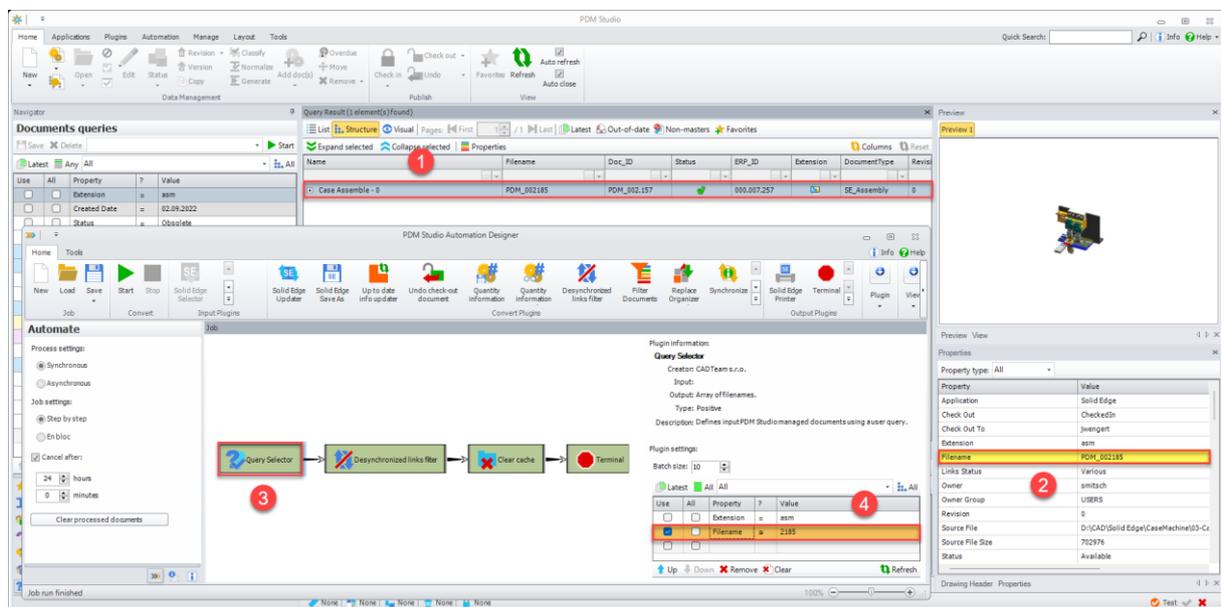
Important: The Automation Designer MUST be closed to delete the log file.

Analysis of all assemblies



In the "Query Selector" plugin (1), define a query (2) to search for all assemblies ("Extension = asm") in the data storage. Define the duration of the workflow (3).

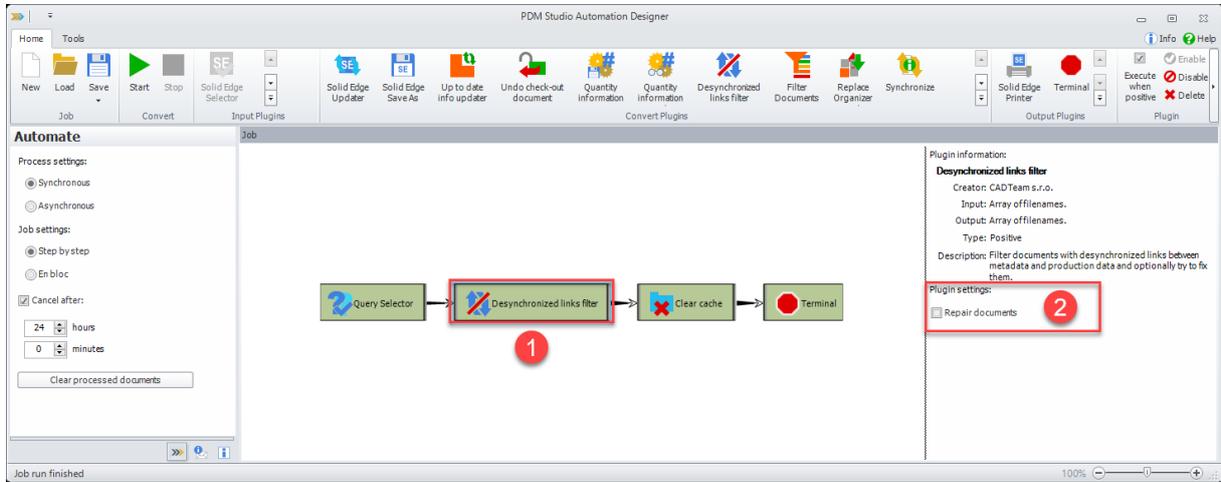
Analysis of a single assembly



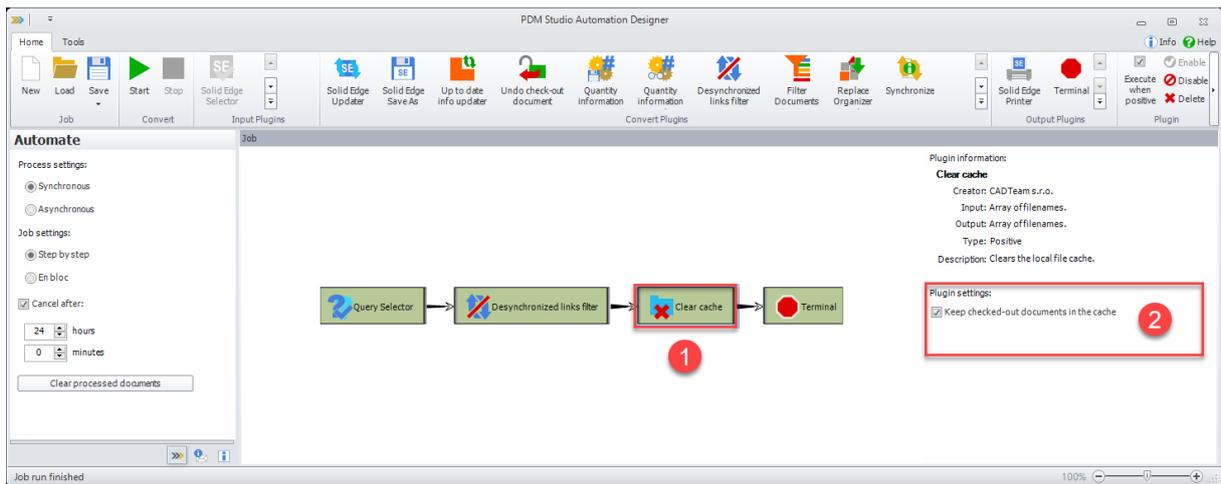
In PDM Studio, search for the **Filename** (2) of the **assembly** you want to analyse (1).

Then define a query in the "Query Selector" plugin (3) to search for the **required assembly** (4). In this case, only the assembly defined in the query will be searched for.

Defining the Analysis



Make sure that the "Repair documents" option (2) is **disabled** in the "Desynchronized links filter" plugin (1).



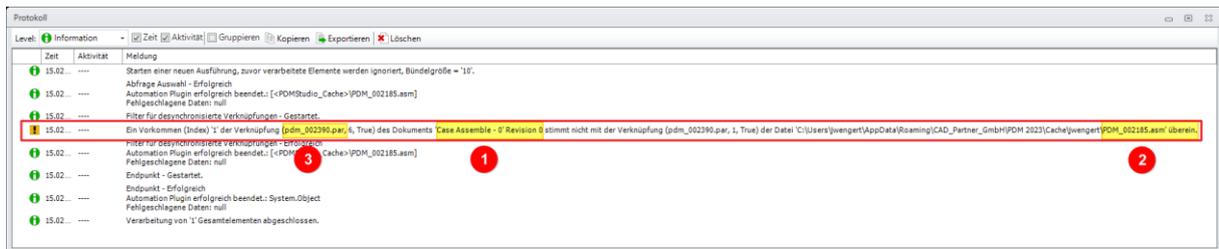
As the documents are loaded into the local cache during the analysis and the cache may become very large with a very large amounts of data, it is recommended to **integrate** the new "Clear cache" plugin (1) as the last plugin. This will empty the local cache after each run.

There should be **no checked-out data on the Automation Server**, but if there are, activate the option "Keep checked-out documents in the cache" (2) to be on the safe side.

Performing the Analysis

Start the analysis in the Automation Designer using the "Start" ► function. If any problems are detected in the assemblies, they will appear in the log marked "Warning" ⚠.

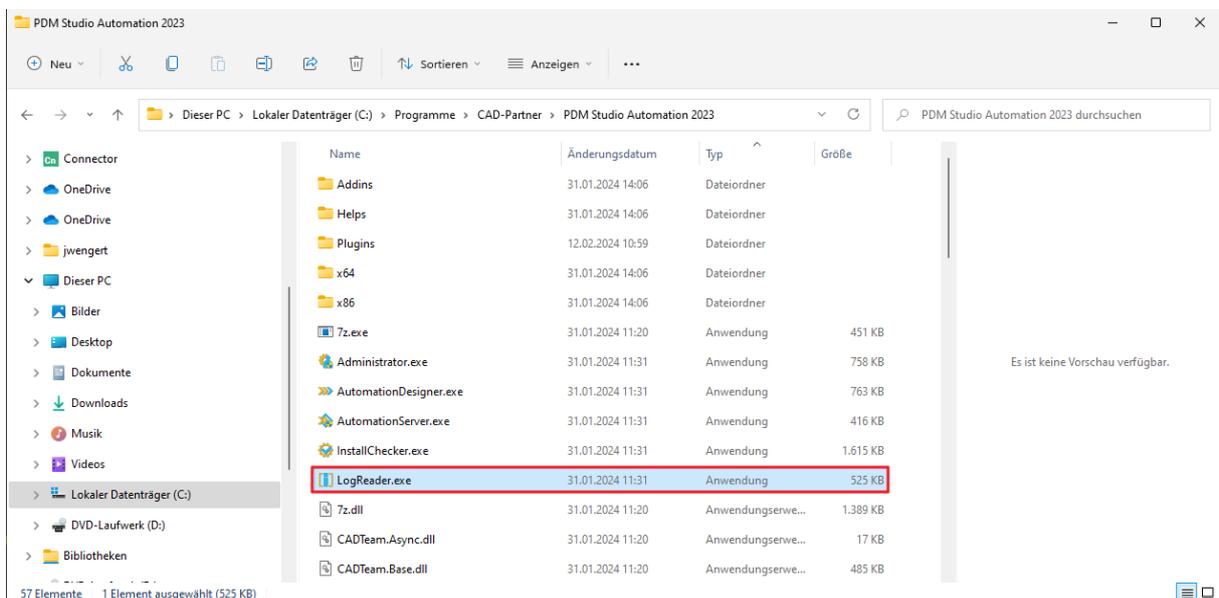
Example:

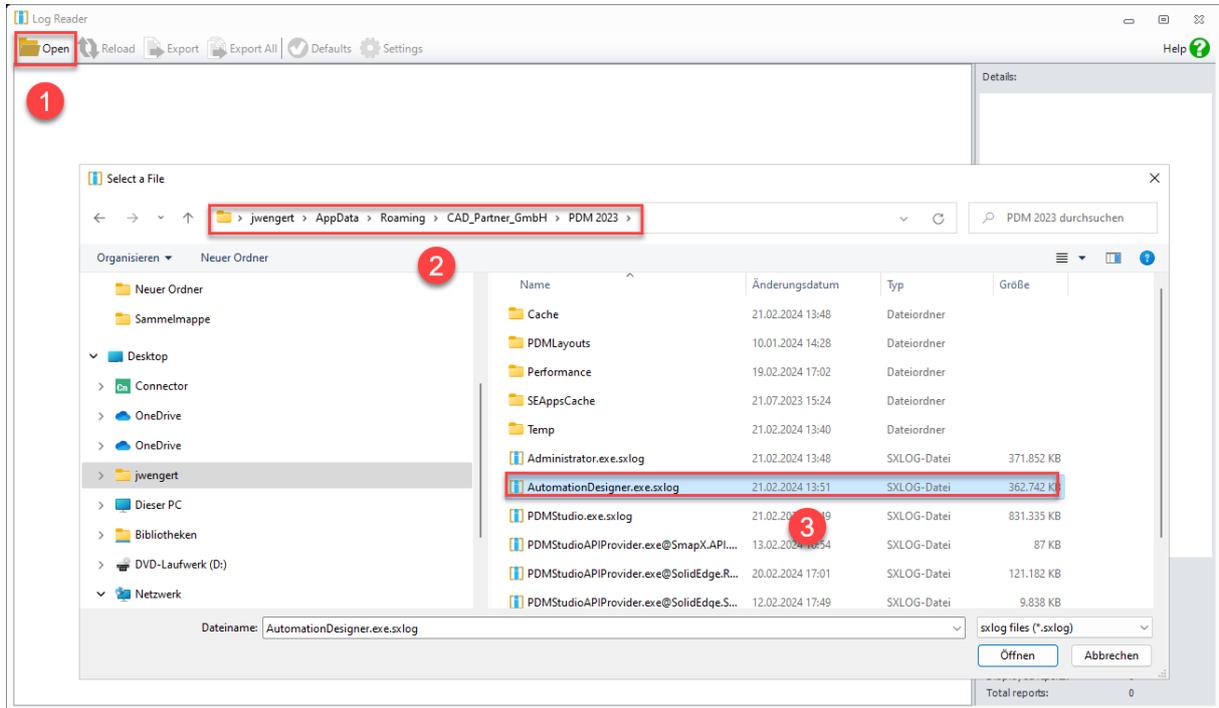


The analysis revealed that a **desynchronized link** with the part "pdm_002390.par" (3) was found in the assembly "Case Assemble - 0" within the "Revision 0" (1) and the file name "PDM_002185.asm" (2).

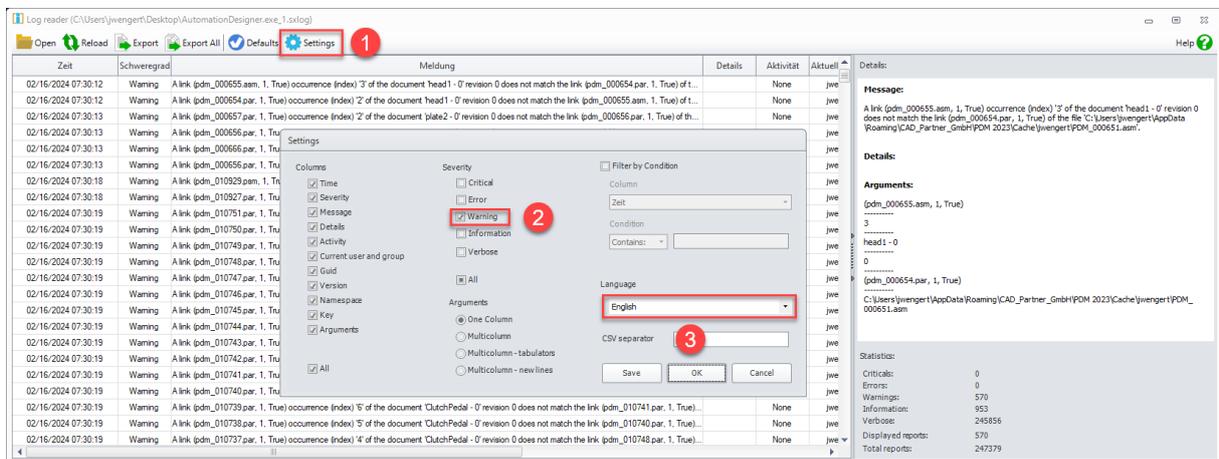
Log:

To open the log file, use Windows Explorer to change to the "C:\Program Files\CAD-Partner\PDM Studio Automation 2023" directory on your Automation Server computer and open the "LogReader.exe" application.





In the "LogReader", select the "Open" function (1) and open the log file "AutomationDesigner.exe.sxlog" (3) from the local cache directory "C:\Users\[USER]\AppData\Roaming\CAD_Partner_GmbH\PDM 2023" (2).

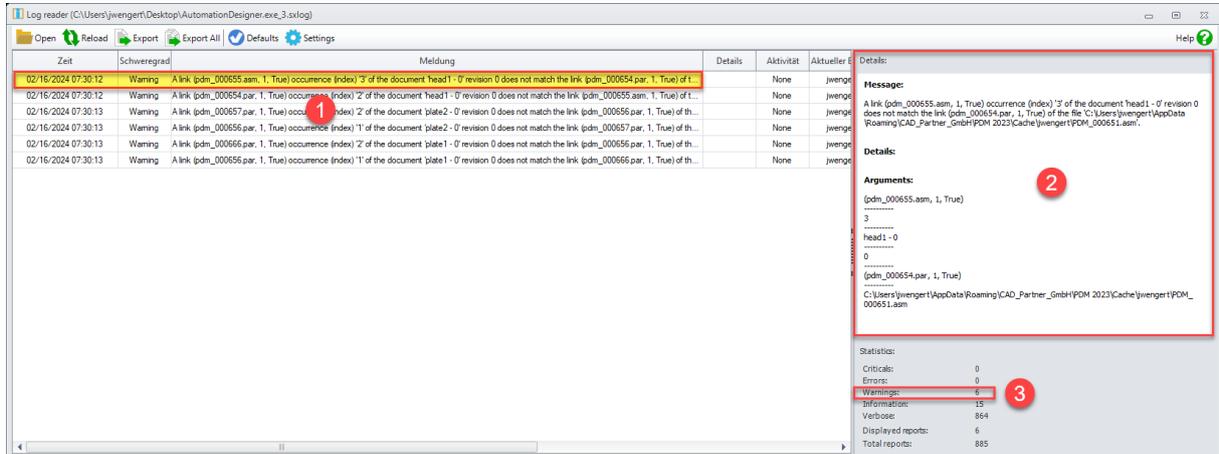


In the opened file, select the "Settings" function (1) and set the severity level to "Warning" (2), as shown in the picture.

You can also change the language to "English" (3) (if it is not already set).

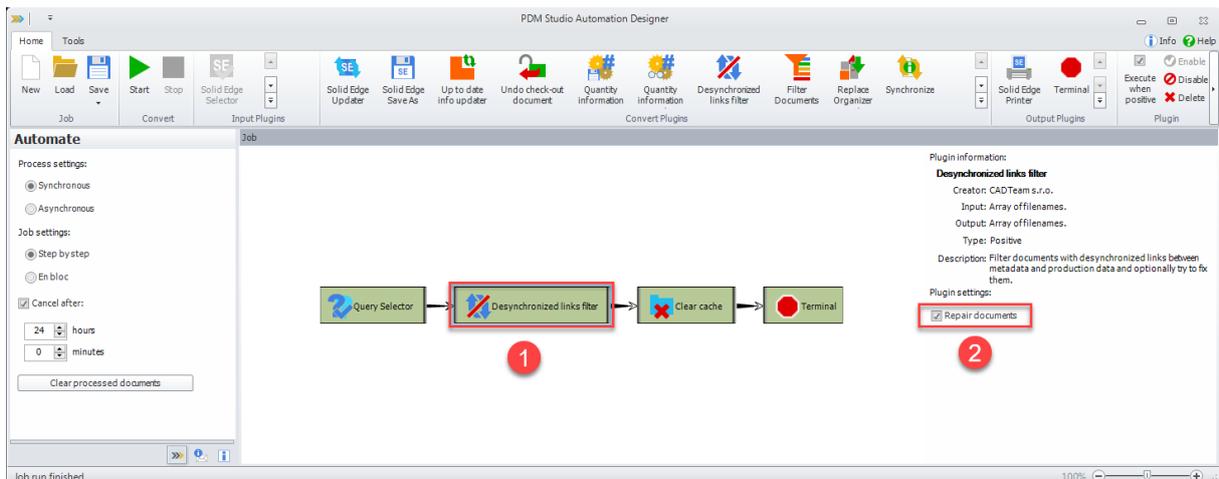
Then confirm with "Save" to save the setting and/or with "OK" to apply the setting for this session only.

Only "Warning" type log entries are now displayed.



When you select an entry (1), the details of the warning are displayed in the Details window (2). The Statistics section (3) shows how many warnings there are in the log.

Example workflow Repairing desynchronized links

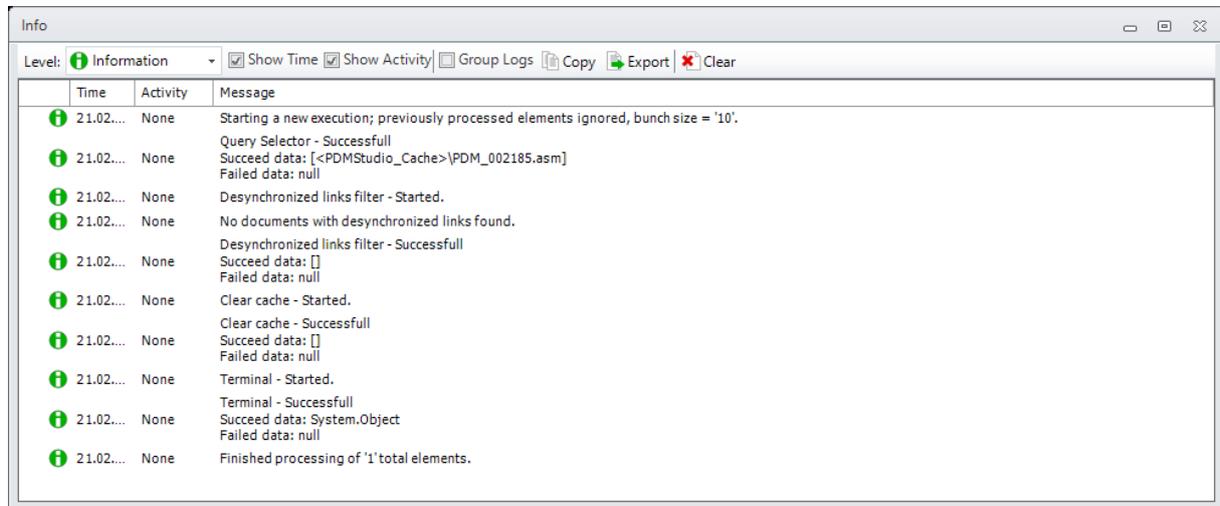


To repair the [found assemblies](#) or the [individual assembly](#) (depending on how you have set the search in the "Query Selector" plugin), activate the "Repair documents" option (2) in the "Desynchronized links filter" plugin (1).

Then execute the workflow using the "Start" ► function.

Note: After the run, the log will show the same entries as the first analysis. You will only be able to see if the assembly repair was successful, if you run the workflow again after the repair and there are no further warnings in the log. It is therefore recommended, that you perform the repair on a [single reported assembly](#) first.

Example of a new run of the workflow after the repair has been completed



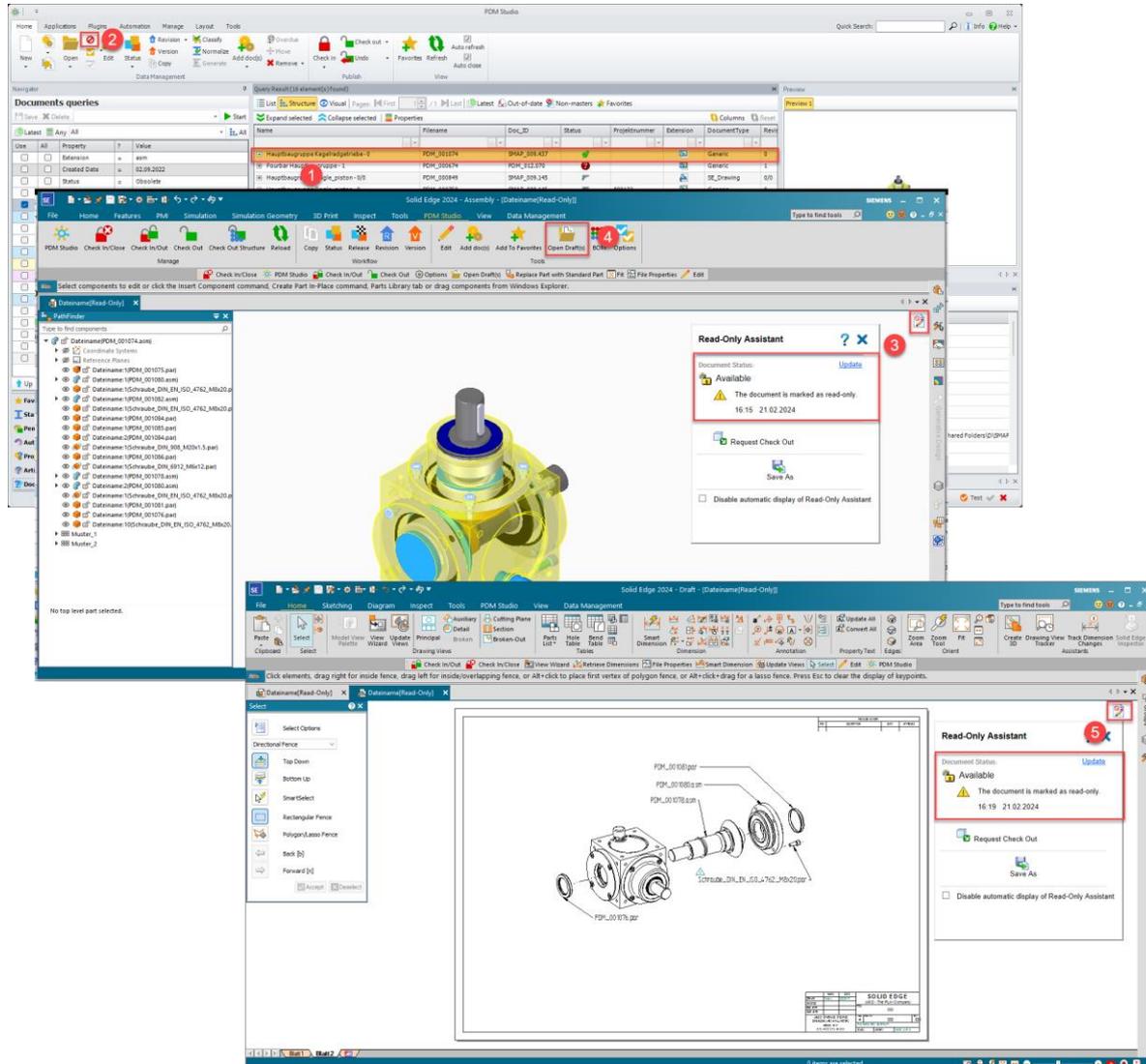
Time	Activity	Message
21.02....	None	Starting a new execution; previously processed elements ignored, bunch size = '10'.
21.02....	None	Query Selector - Successfull Succeed data: [<PDMStudio_Cache>\PDM_002185.asm] Failed data: null
21.02....	None	Desynchronized links filter - Started.
21.02....	None	No documents with desynchronized links found.
21.02....	None	Desynchronized links filter - Successfull
21.02....	None	Succeed data: [] Failed data: null
21.02....	None	Clear cache - Started.
21.02....	None	Clear cache - Successfull Succeed data: [] Failed data: null
21.02....	None	Terminal - Started.
21.02....	None	Terminal - Successfull Succeed data: System.Object Failed data: null
21.02....	None	Finished processing of '1' total elements.

The log after **re-running the workflow** on the reported assembly will now show that there are **no more "desynchronized links"** in that assembly.

The assembly should now be link compliant again.

Solid Edge & SOLIDWORKS

Read-only drawings with read-only opened 3D model



The status of the drawing opened from Solid Edge via the PDM Studio toolbar is now derived from the source document of the 3D model from MP04 onwards.

In our case, the **source document (1)**, an assembly with a linked drawing, is opened in **read-only mode (2)**. When the **drawing is then opened from the 3D model using the "Open drawing" function (4)** from the PDM Studio tab of the application, the **opened drawing is now read-only (5)** too, just like the 3D assembly (source file).

Note: If you "Check out" the 3D model to the application (writable) and then open the drawing, the drawing will open writable.

Note: This feature does not yet support XMLI connected systems such as Autodesk Inventor and Siemens NX.

Other (Technotes)

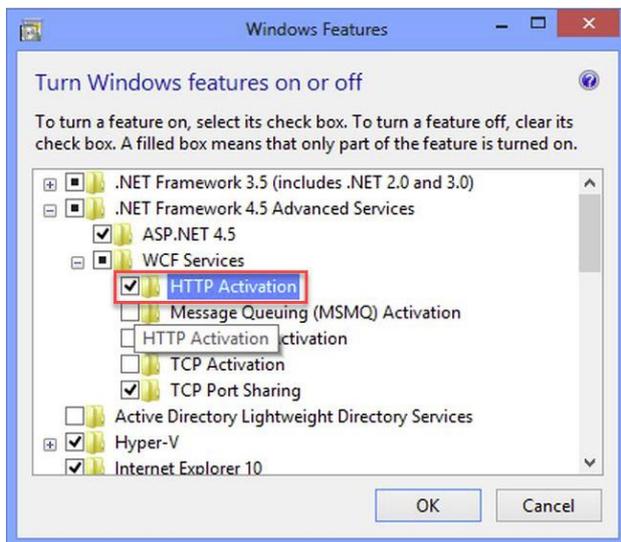
General

In the Windows update process, the Microsoft .NET Framework will also be updated to the latest version 4.8.

However, Microsoft .NET Framework 4.8 contains a bug that causes - with installed Freeplugins - Client Administrator and PDM Studio to crash on startup. The error occurs exclusively after upgrading to .NET 4.8.

According to our research, this error is already known at Microsoft and affects very many software products from other manufacturers. We cannot currently estimate when Microsoft will fix the problem.

However, there is a direct solution to the problem:



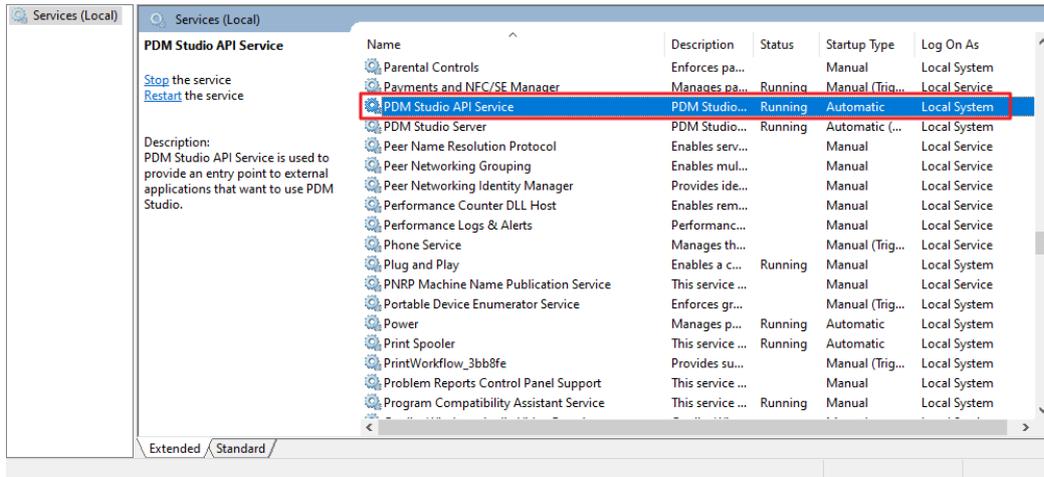
If the **Microsoft .NET Framework 4.8** is installed, go to the **Windows Features** in Windows Settings, and open the "Turn Windows features on or off" settings.

The "Windows Features" dialog appears. Check the "HTTP Activation" option in the ".NET Framework 4.8 Advanced Services".

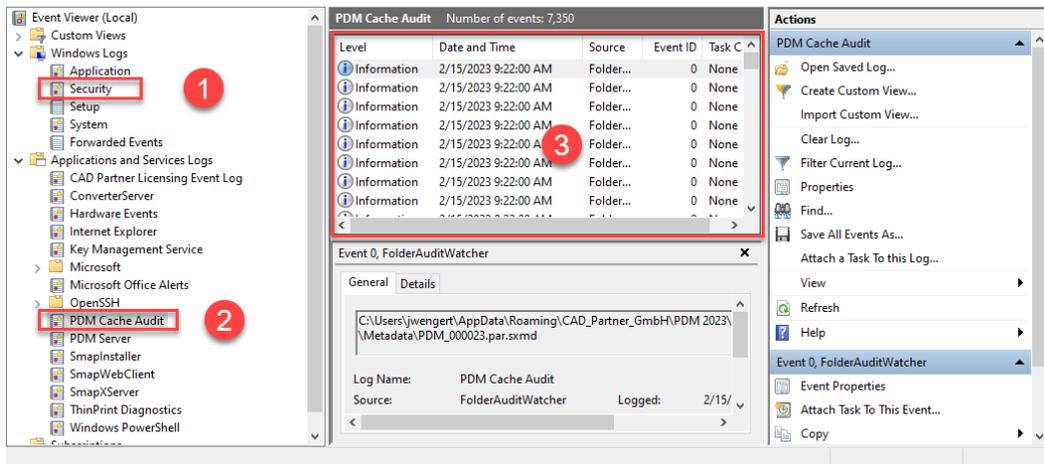
After that, all PDM application should work again without problems.

Message Cache monitoring could not be initialized

The PDM Studio core contains an enhanced cache monitor that provides developers and administrators with improved analysis capabilities. However, in rare cases, cache monitoring may fail to start automatically (see below for details).



The responsible source process is the "PDM Studio API Service" service.



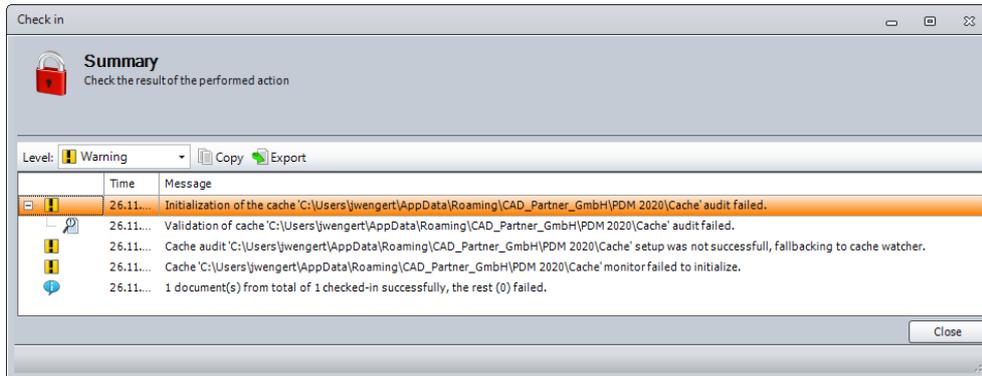
The most important point is that the PDM Studio API service **MUST** have access to the "Security" event log (1).

Technically, the Cache Monitor listens to the audit events from the "Security" event log, and if they come from the local cache folder, it copies them to the "PDM Cache Audit" event log (2) output window (3), which is then picked up by PDM Studio (and other PDM client applications) and used to monitor the cache.

Background: The reason for this procedure and the cause of the following message in PDM Studio is that PDM Cache security event log is only accessible with elevated privileges ("Administrator"), which PDM client applications normally do not have

This new monitoring of the cache usually configures itself automatically during installation.

However, depending on the company's permissions system, this may not succeed (because the workstation does not have the necessary rights) and the following error message will appear in PDM Studio:



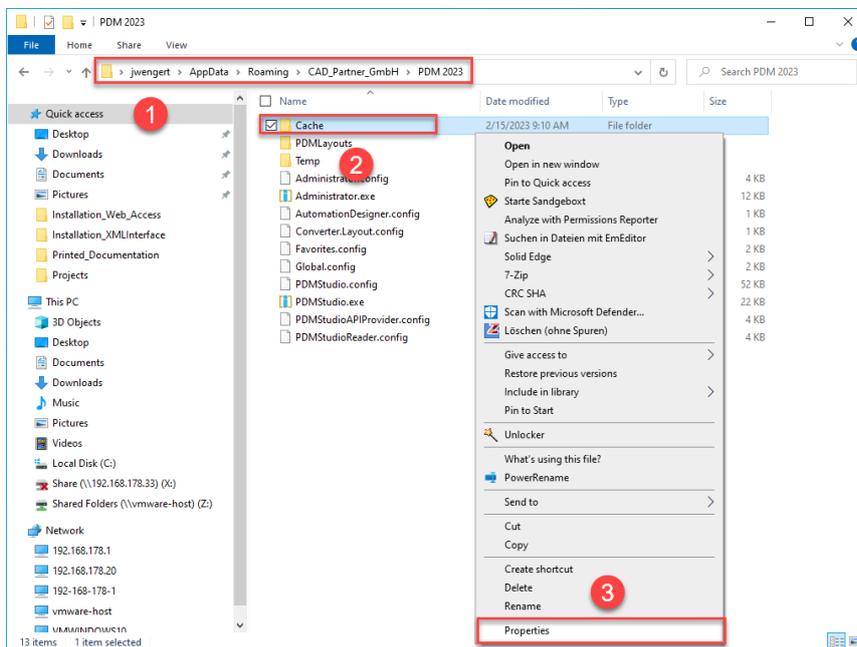
Important: This is because the company's security policy cannot be changed directly from the workstation, but is controlled globally by IT.

There is nothing to worry about in this case, it basically just means that the new "cache monitoring" functionality has been disabled and the software will work in a standard mode.

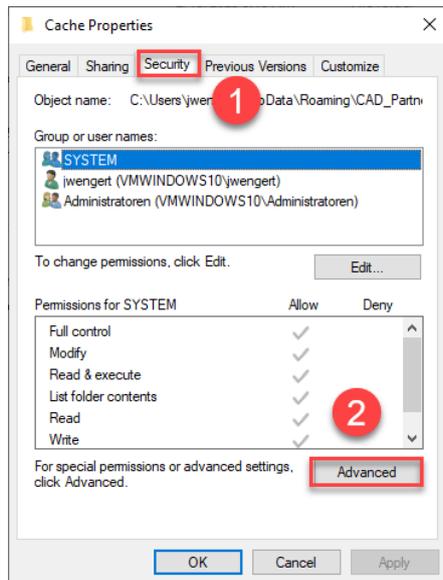
If this happens, check the following Windows settings.:

Go to the directory "PDM 2023" (1) of your workstation.

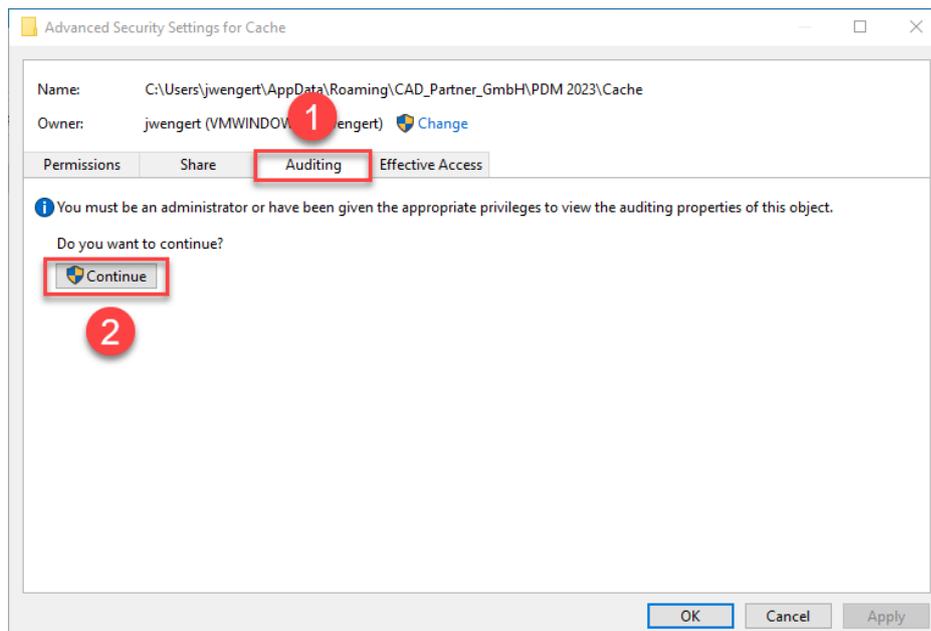
Usually: "C:\Users\[User]\AppData\Roaming\CAD_Partner_GmbH\PDM 2023"



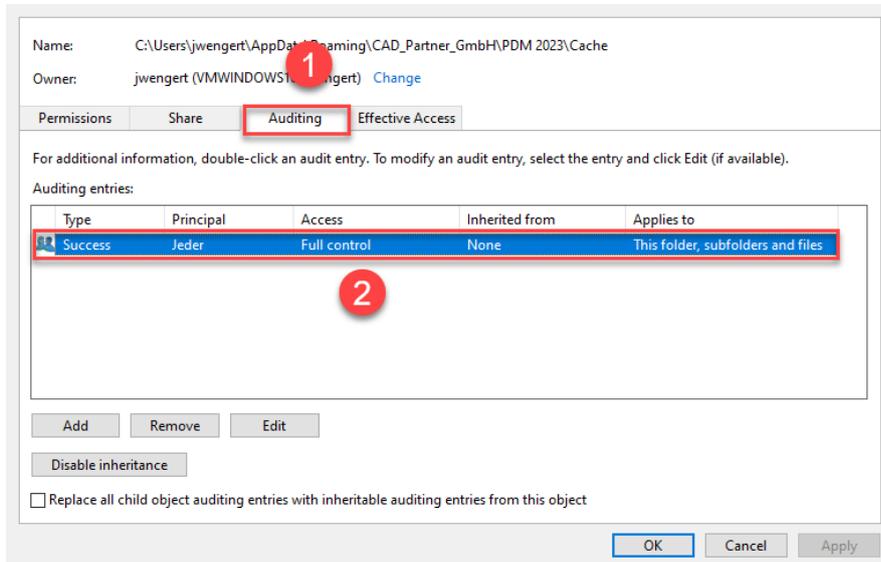
Right-click on the "Cache" folder (2) and select the "Properties" (3).



In the properties of the "Cache" directory, switch to the "Security" tab (1) and then click to the "Advanced" (2) button.

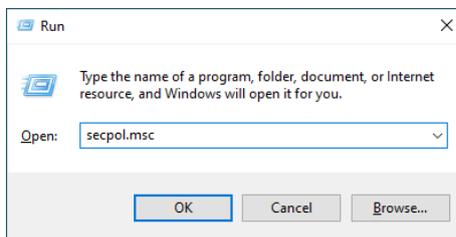


In the "Advanced security settings" of the cache directory, select the "Auditing" tab (1) and then click Continue (2).



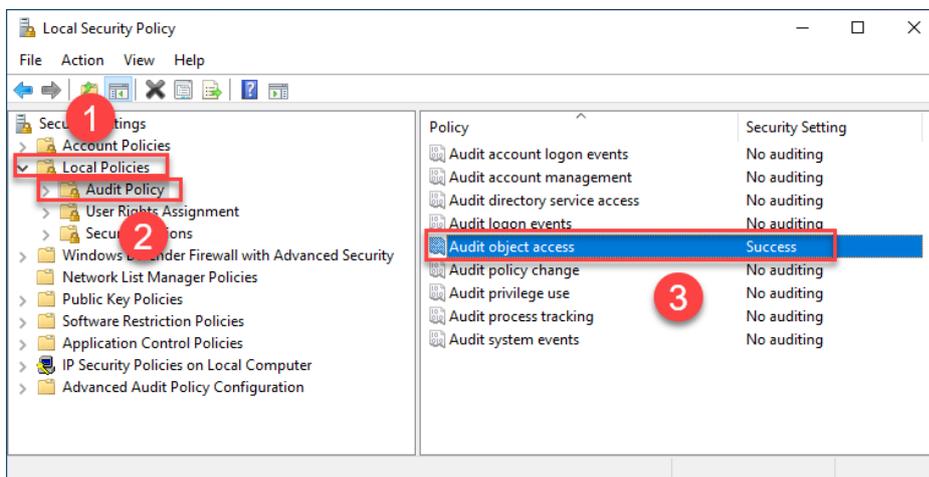
Go to the "Auditing" tab (1). In order to be able to monitor successful access to the cache folder and all its subfolders and files, "Full control" (2) over this folder and all its subfolders and files **MUST** be configured for everyone without any restrictions. If this is the case, then everything is fine here.

In the next step, start "Run" with the Windows key combination "WIN+R" as an administrator.

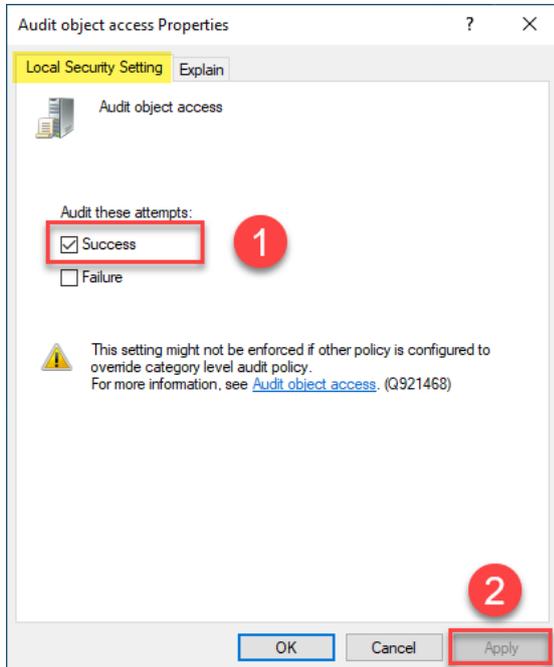


Then enter the command "secpol.msc". The Local Security Policy will be started.

Important: Please note that you need "Administrator Privileges" for this function.



Go to the "Local Policies" (1) and navigate to the "Audit Policies" (2). Open the "Audit object access" option (3) by double-clicking on it.



The "Audit object access Properties" will be opened. The "Success" (1) option must be checked here.

If this is not the case, tick the "Success" (1) option and "Apply" the change (2).

The new cache check should work correctly, and the message should no longer appear in PDM Studio if both settings are set as described above.

Important: It is possible that the security policy is reset by Windows during the installation process after a Windows update. In this case, PDM Studio will report the error again and you need to re-enable the "Monitor object access attempts properties" again.

Disabling cache monitoring

Cache monitoring can also be disabled by adding the following setting to the "Global.config" file in the `C:\Users\[USER]\AppData\Roaming\CAD_Partner_GmbH\PDM 2023` directory. Add the following line to the file:

<setting name="DisableCacheMonitor" serializeAs="String" IsNull="false">true</setting>

Installation

Plugins in general:

Some words about custom plugins, specially written for you.

If you have custom plug-ins developed especially for you, please check with our support team before installing them to ensure they are compatible with the version of PDM Studio you are installing.

After Installation

General

Important: Updated Free- and Freeconverter plug-ins may be required with each maintenance pack for PDM Studio version 2023.

An update of the Free and Freeconverter plugins is also required when upgrading from V2020 to V2023.

The updated/last available plugins are located in the file "CADpartner_FreePlugins_V2023-MPxx.zip" in the directory "\\Plugins" of your installation files.

Please contact our support if necessary if you are using specific custom plugins. Usually, we only need to recompile them for the specific Maintenance Pack of PDM Studio V2023 and can provide them along with the FreePlugins.

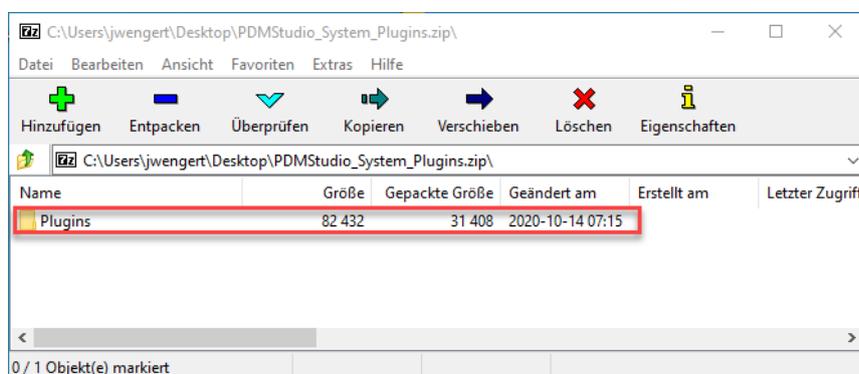
For more information on installing the Free- and Freeconverter plug-ins, refer to the Installation Plugins chapter in the "PDMStudio_Installation_2023_EN.pdf" document.

Add - Add-On Tools

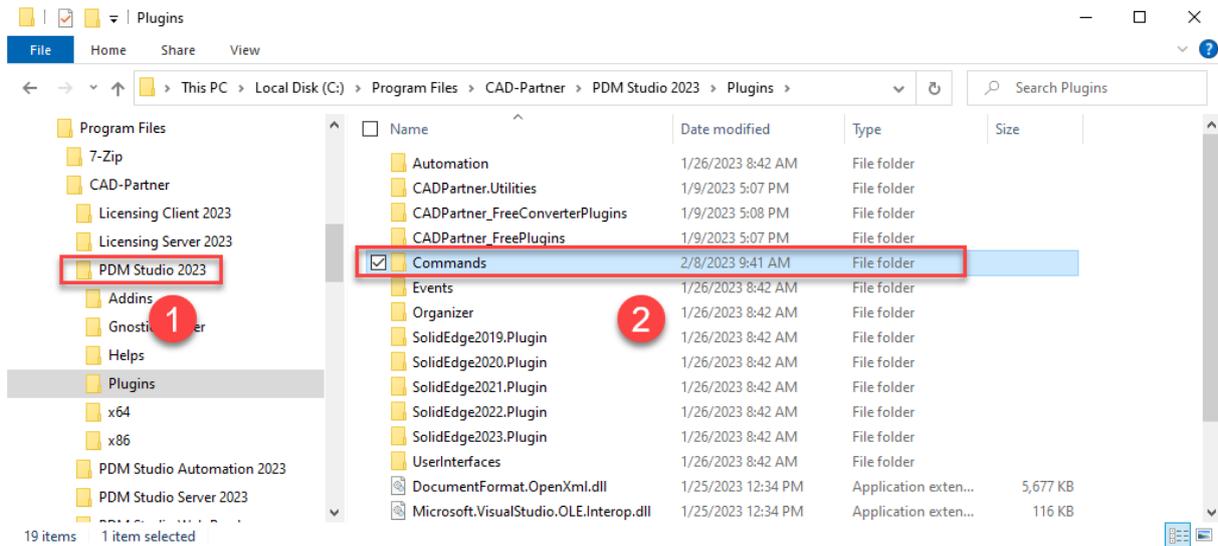
The "Unmanaged Export" function is not included in the installation package of the standard software and must be installed separately after installing the 2023 version.

Go to the "\\Plugins" directory of your installation files. There you will find the zip file "PDMStudio_System_Plugins.zip". This zip file contains the new function described above.

Open the zip file.



The zip file contains the **Plugins folder**.



Copy the entire "Plugins" (do not change into the folder) folder to the main directory of your PDM Studio client installation - usually "C:\Program Files\CAD-Partner\PDM Studio 2023" (1).

The folder will be automatically integrated into the Plugins folder (usually "C:\Program Files\CAD-Partner\PDM Studio 2023\Plugins") of the installation directory (2).

Note: The contents of the folder will overwrite the previous files when updating within PDM Studio V2023.

The new "Commands" folder is now available in the Plugins directory (or updated, depending on whether you are updating within V2023 or upgrading from V2020).

The feature is now available.

Client Tools

In addition to the general plugins, you will find the zip file "PDMStudio_Client_Tools.zip" in the directory "\Plugins" of your installation files. This zip file contains the "SmapX.Client.Tools.dll" file. This DLL contains special functions for the PDM Studio Client Administrator application.

Copy the DLL "SmapX.Client.Tools.dll" into the installation directory of your PDM Studio installation "C:\Program Files\CAD-Partner\PDM Studio 2023".

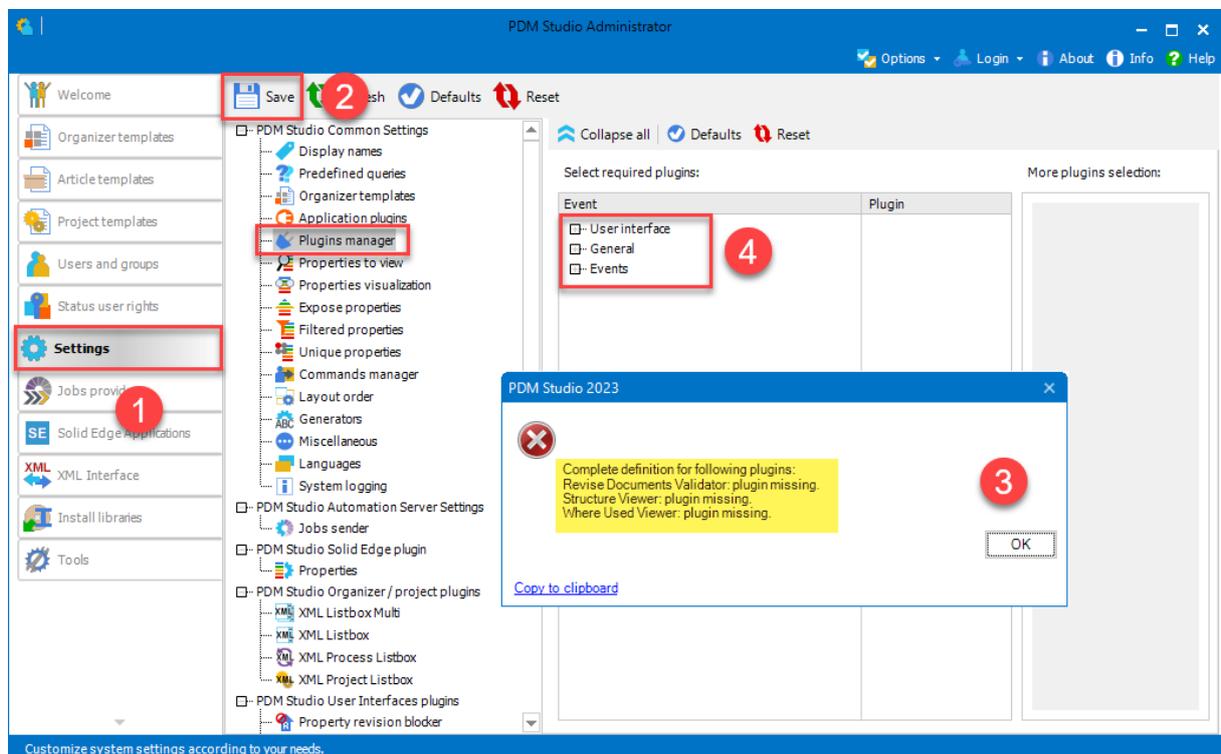
Note: The "SmapX.Client.Tools.dll" contains functions specific to your company's PDM Administrator. Therefore, it must be copied ONLY once to the PDM Administrator's computer. If you need to use these special functions - our support will inform you.

Each Maintenance Pack contains an updated "SmapX.Client.Tools.dll" suitable for that Maintenance Pack. It has to be copied to the above-mentioned directory after each installation of a new Maintenance Pack and it will overwrite the existing one.

Setup Client Administrator

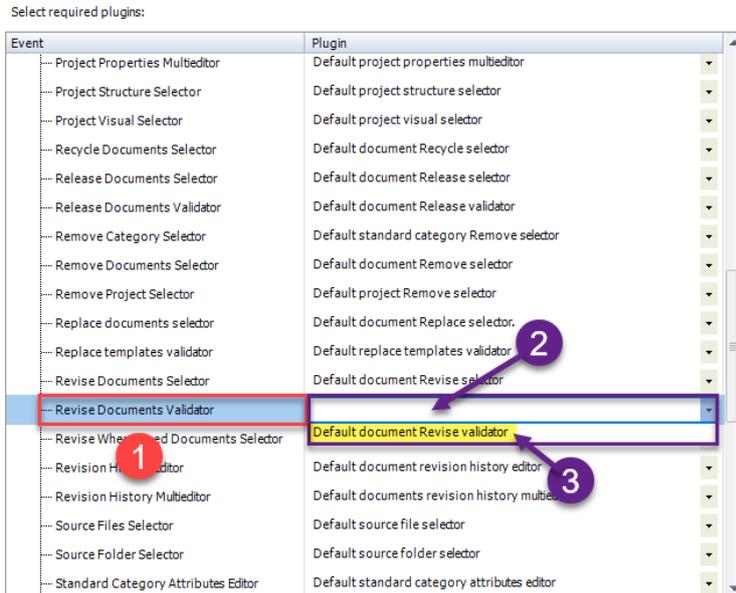
Each installation may also bring new settings to the Client Admin. You will need to manually configure these settings.

Very important: After the installation, please start the Client Administrator, go to Settings (1), and click Save (2).



There may be some messages (3) (you will be directed to the location (Plugin Manager) (4) of the missing Plugins) about missing Plugins. These messages prevent you from saving the settings.

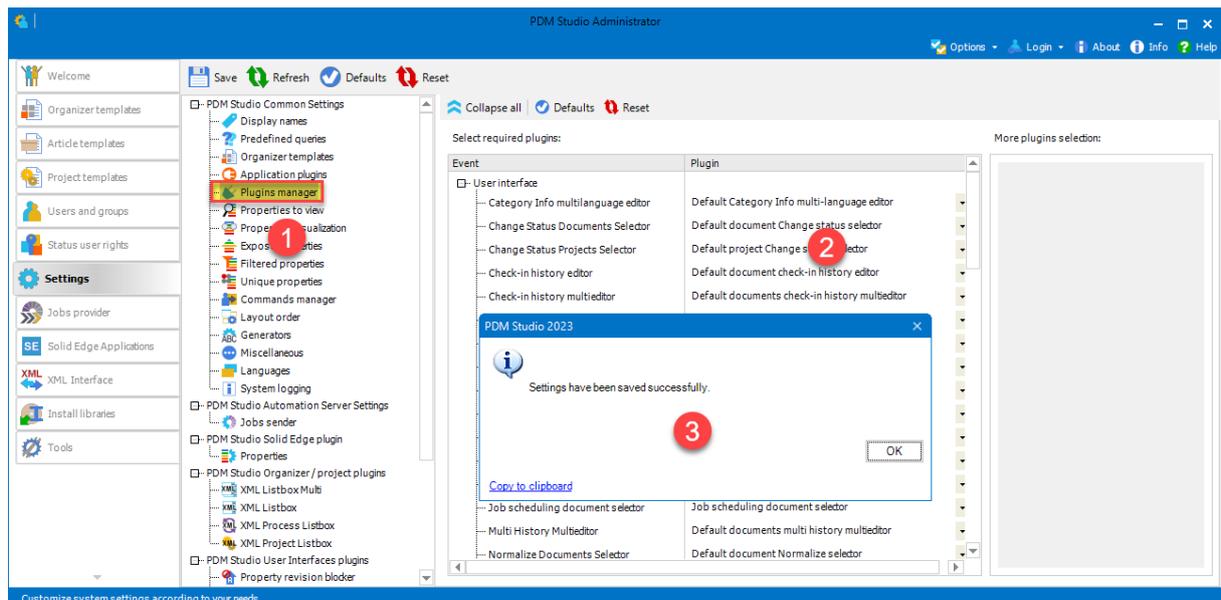
Expand the Event where the Plugin is located, in our example "User interface" and scroll down until you see the mentioned Plugins (image above (3)) "Release Documents Validator" (image below (1)).



Fix these missing settings (indicated by empty entries in the respective "Plugin" column (2) of the corresponding "Event" (1)) and assign the Plugin (3) from the pull-down menu to the missing events and click "Save" again.

Important: You cannot "Save" the settings until all the necessary settings are set correctly.

If ALL settings (2) are saved correctly in the Plugins Manager (1), you will see the message "Settings have been saved successfully" (3).



Other enhancements/improvements/changes/fixes/bugs

Enhancements:

Module	Description
General	Introduced a new managed property UID contains unique document / project / article / folder / category identifier.
General	Added a warning when a client application attempt logging to PDM Studio Server as different user than has been already logged on the same computer.
Inventor Integration	Added support for *.dxf format in Inventor Save As Automation plugin.
Migration	Introduced snapshotting of migrated data before analyze phase. It mainly improves performance because all metadata will be read only once.
Migration	Added Solid Edge 2023 and Solid Edge 2024 migration plugins.
P&ID	Added support of P&ID 2024.
PDM Studio	Introduced possibility visualized project / article properties values by the same way as for documents.
PDM Studio	Added possibility adding already imported documents to active project / folder in Import wizard including new steps for filling check-in history.
SE/SWX/MSO Integrations	Possibility to start Part Organizer in read only mode when edited document is read-only and option "Allow editing metadata of read-only files" is deactivated.
Solid Edge Integration	Added support for additional formats in Solid Edge Save as Automation plugin (*.ifc, *.catpart, *.3mf, *.qsm, *.obj, *.fbx).
SOLIDWORKS Integration	Added SOLIDWORKS 2024 support.

Improvements:

Module	Description
Automation Plugin	Revised descriptions of all Automation plugins.
Client Administrator	Improved sorting of application plugins in settings selection combos (for unique and also not unique extensions).
General	Introduced a check for application migration plugins set during a PDM Studio client start.
Install Checker	Install Checker exports PDM Studio Server and Automation Server content.
Install Checker	Install Checker reads and exports logs locked by applications.
Installation	Added check for newer versions of licensing applications. It means that MP4 installation accepts Licensing 2024 distributed together with Smap3D Plant Design.
Migration	Improved the migration log with information about set migration plugins.
P&ID Integration	Improved displaying P&ID documents history by expected PDM Studio format.

PDM Studio	All import options of Import user documents, standard or foreign parts wizards are saved for next launch.
PDM Studio	Explanatory tooltip added for Properties column of Query Builder.
PDM Studio Server	Improved a PDM Studio Server reading / writing queues that manage requirements from all PDM Studio clients.
PDM Studio Server	Improved Automation Server jobs queue that manages requirements from all PDM Studio clients.
PDM Studio Server	Improved logging for check-in, check-out and undo-check-out operations in Info and Profiling severity.

Changes:

Module	Description
Automation Designer	Changed caption of navigator tab in Automation Designer from Convert to Automate.
Automation Plugins	Unified an internal functionality of PDM Studio selectors (with / without UI) Automation plugins.
PDM Studio	Simplified selection rules for structure links of Update Where Used and Revise Where Used wizards. Non structural parents are selected like structural.
Server Administrator	Fixed translation of several message box buttons in PDM Studio Server Administrator.
XML Interface	Disabled not implemented out-of-date links sensitivity for all XMLI integrated applications. It displayed nonsense warning messages.

Repaired Bugs:

Module	Description
Automation Designer	Fixed an exception when read-only jobs are saved (as) in Automation Designer application.
Automation Designer	Fixed disappearing the Automation Designer main dialog when a job is opened.
Automation Designer	Fixed an exception because exceeded maximum count of GDI objects. Some event handlers were not correctly disconnected and kept object in memory.
Automation Designer	Fixed setting of new ID for saved as automation jobs. Jobs created by Save As command must have different ID than source jobs.
Automation plugin	Fixed reporting downloading documents as warning for 'Ensure in cache' Automation plugin. Downloading is reported only as info.
Client Administrator	Fixed sorting properties in Properties Visualization settings after initialization.
Client Administrator	Fixed updating asterisk symbol for not saved changes in user definition after saving.
Client Administrator	Fixed translation of Client Administrator - Settings - Layout Order panel.

General	Fixed auto-scrolling in grid when they are focused / highlighted cell typically. It scrolls "too much right/down" causing an unnecessary dead area to be shown.
General	Fixed random deadlocks during data downloading by reworking check of UTF characters validity.
Installation	Fixed disabling of P&ID checkbox in the Custom setup step when no P&ID application installed on the computer.
Installation	Fixed licensing update for PDM Studio client installation.
Installation	Fixed client installation upgrading process for adding licensing feature.
Installation	Fixed installation of licensing client via 'modify setup' of PDM Studio client.
Installation	Licensing configuration step is now skipped if it is not necessary to display it.
Installation	Fixed modification of client installation. Installation finished screen is now displayed correctly.
Installation	Fixed checking of already installed licensing in Automation setup.
Log Reader	Fixed 'Not Contains' and 'Not Empty' operators of filtering condition.
Part Keeper	Fixed checking of global property values uniqueness in multi-editor in special situation when the same values are swapped between properties.
Part Organizer	Fixed synchronization from production data to metadata that is currently processed only when document is fully checked-out.
PDM Studio	Fixed an exception in release validation step of Release document wizard for assemblies.
PDM Studio	Fixed moving projects by drag & drop in Query Result panel.
PDM Studio	Fixed an exception in PDM Studio if a property visualization value does not match property type.
PDM Studio	Fixed ignoring 'empty preselection' option for Update / Revise Where Used wizards.
PDM Studio	Fixed enabling / disabling of the automation buttons in PDM Studio.
PDM Studio	Fixed loading visual categories in wizards managing standard parts (copy, classify ...).
PDM Studio	Fixed displaying history configuration of Update and Update where used wizards.
PDM Studio	Fixed validation rules for Update / Revise Where Used wizards. When a document is disabled then all its parents (visual children) must be also disabled.
PDM Studio API	Fixed refreshing of the PDM Studio to be correctly asynchronous.
SE/SWX Integration	Fixed missing message when no draft /drawing is available for Open Draft command.
Solid Edge Integration	Fixed an exception when PDM Studio is opened from Solid Edge Fastener System application.
XML Interface	Fixed generating content of *.sxapp file where component filenames are written instead of fullpaths. Fix from MP3 has not solved all situations.
XML Interface	Fixed displaying help from XMLI application.

XML Interface	Fixed starting XML Interface main dialog that no longer starts out of bounds.
XML Interface	Fixed an exception when there are too many entries in XML Interface dialog.

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